

Local Strategic Recreation Management Plan for the Muskwa-Kechika Management Area

Recommended Draft



Frog River, Courtesy of George Smith



**BRITISH
COLUMBIA**

Ministry of Sustainable Resource Management

August 2004

ACKNOWLEDGEMENTS

Over the course of developing this plan a number of groups and individuals kindly provided their time, support and expertise who we would like to acknowledge, since their efforts have helped to ensure the formation of what we hope to be a balanced and informed recreation management plan (RMP) for the Muskwa-Kechika Management Area (M-KMA).

In establishing the original Muskwa-Kechika Recreation Management Plan (M-KRMP), in addition to a number of groups and individuals who provided their input and expertise, a Working Group consisting of government agency staff, First Nations representatives and M-K Board members combined efforts. Members of this Working Group are listed in Appendix 1.

In establishing the Mackenzie Addition's Recreation Management Plan, input and support was also received by Provincial Government staff, First Nations representatives, M-K Board members and a number of tourism and recreation stakeholders; however, this was not achieved through the formation of a Working Group. A list of specific individuals and involved groups occurs in Appendix 1.

Special thanks is extended towards these above-mentioned core groups and individuals whose hard work and commitment has resulted in a plan that will provide for continued recreation opportunities in the Muskwa-Kechika while maintaining the area's spectacular wilderness and wildlife values.

Our sincere gratitude is also directed to those groups, individuals, clubs, organizations and local communities and governments who took the time and effort to assist in this worthwhile planning process.

The support and assistance of those First Nations whose traditional territories the Muskwa-Kechika Management Area overlaps with is also greatly appreciated. These community's obvious love, concern and commitment to sustainable land use planning served as an inspiration for each planning process.

Funding support from the Muskwa-Kechika Advisory Board is also gratefully acknowledged.

Special thanks is extended to those members of the public, First Nations, guide outfitters and interest groups who took the time to participate through open houses, meetings, phone calls and written comments.

Ron Rutledge,

Chair of the Working Group

Original Recreation Management Plan for the Muskwa-Kechika Management Area

Alison Davis,

External Coordinator,

Mackenzie Addition Recreation Management Plan

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	i
EXECUTIVE SUMMARY.....	v
MANAGEMENT DIRECTION	v
RECREATION ACTIVITY GUIDELINES (APPROPRIATE ACTIVITIES).....	vii
REVIEW OF COMMERCIAL RECREATION PROPOSALS	viii
MONITORING	ix
RECOMMENDATIONS	ix
PLAN IMPLEMENTATION AND REVIEW.....	x
INTRODUCTION.....	1
BACKGROUND.....	1
PURPOSE AND OBJECTIVES	2
PLAN ORGANIZATION.....	2
PLANNING AREA OVERVIEW.....	4
PLANNING PROCESS.....	6
PHASE 1: ORIGINAL M-KRMP STRATEGY	6
PHASE 2: MACKENZIE ADDITION RMP STRATEGY	8
PLANNING AND MANAGEMENT ISSUES AND CONCERNS	9
RECREATION MANAGEMENT FRAMEWORK.....	12
PLANNING AND MANAGEMENT GUIDELINES.....	12
PLANNING AND MANAGEMENT PRINCIPLES.....	14
RECREATION ANALYSIS PROCEDURES	17
RECREATION SUPPLY	17
RECREATION USE.....	17
RECREATION DEMAND	18
RECREATION VALUE	18
LRMP OBJECTIVES AND STAKEHOLDER AND FIRST NATIONS' OPINIONS.....	18
RECREATION PROFILE – VALUES, CURRENT SITUATION AND ASSUMPTIONS.....	18
ECOLOGICAL CONSIDERATIONS FOR RECREATION MANAGEMENT.....	38
SOIL CONDITIONS.....	38
VEGETATION CONDITIONS.....	38
WILDLIFE AND FISH	38
WATER	38
FACTORS AFFECTING CHANGES TO ECOSYSTEM COMPONENTS	39
MINIMIZING CHANGES TO ECOSYSTEM COMPONENTS.....	40
SUMMARY	40
MANAGEMENT DIRECTION FOR RESOURCE MANAGEMENT ZONES	41
INTRODUCTION	41
GENERAL RECREATION MANAGEMENT DIRECTION	41
PRINCIPLES TO GUIDE THE REVIEW OF COMMERCIAL RECREATION APPLICATIONS.....	51

Recreation Management Plan for the M-KMA

MONITORING PLAN	53
INTRODUCTION	53
MONITORING FACTORS, INDICATORS & PROCEDURES	53
MONITORING SCALE.....	53
ACCEPTABILITY OF CONDITIONS MONITORED	53
RECOMMENDATIONS	57
PLAN IMPLEMENTATION AND REVIEW	64
APPENDIX 1: INDIVIDUALS INVOLVED IN THE MACKENZIE ADDITION PLANNING PROCESS	65
APPENDIX 2: ADMINISTRATIVE FRAMEWORK FOR RECREATION MANAGEMENT IN THE M-KMA	66

Table of Figures

Figure 1. Map of the Mackenzie Addition of the M-KMA	3
Figure 2. Recreation Analysis Model	19
Figure 3. M-KMA Recreation Management Categories for Resource Management Zones	42

Table of Tables

Table 1. M-KMA Recreation Management Plan (M-KRMP) Planning Activities	7
Table 2. Mackenzie Addition Project Planning Steps and Timelines	9
Table 3. Values, Current Situation and Assumptions.....	22
Table 4. Activity Guidelines for Categories of RMZs	50
Table 5. Monitoring Factors, Indicators and Procedures.....	54

EXECUTIVE SUMMARY

The Muskwa-Kechika Management Area (M-KMA) Recreation Management Plan fulfils requirements set out in the *Muskwa-Kechika Management Area Act*. This legislation came about as a result of recommendations from the Fort Nelson and Fort St. John Land and Resource Management Plans (LRMP) accepted by the Provincial government in 1997.

In June 1998, a Working Group was formed by government to begin development of the Recreation Management Plan for the original portion of the M-KMA, including provincial parks. The Working Group included representatives from the Ministry of Forests (MOF), BC Parks, BC Assets and Land Corporation (BCALC), First Nations and the Muskwa-Kechika Advisory Board.

Following completion of the Mackenzie Land and Resource Management Plan in 2001, the Province added an additional 1.9 million hectares to the M-KMA. Known as the "Mackenzie Addition," this parcel increased the M-KMA's total area by approximately 50 percent, or 1,929,204 ha. To ensure the occurrence of parallel management of recreation resources and values within this expanded area, a Recreation Management Plan for the Mackenzie Addition also took form.

This current plan represents a 'seamless,' amalgamated plan stemming from the original M-KMA jurisdiction and the Mackenzie Addition.

The primary purpose of this combined plan is to produce an overview assessment of recreation resources in the M-KMA consistent with LRMP management directives and the *Muskwa-Kechika Management Area Act*. Products of this plan include the following:

- ❖ identification of appropriate recreation activities;
- ❖ provision of additional principles to assist in reviewing commercial recreation (CR) activities;
- ❖ identification of priority areas where further planning is required; and
- ❖ specification of how this plan can be revised, implemented, monitored and evaluated.

This Recreation Management Plan fulfils requirements set out in the *Muskwa-Kechika Management Area Act*, as well as direction from relevant LRMP's. The plan's primary purpose is to ensure the maintenance of the M-KMA's wilderness characteristics, fish, and wildlife. The plan also provides for a spectrum of recreation opportunities, which have minimum impact on the area's natural setting.

Management Direction

A set of general management directions describes the appropriateness of commercial and public recreation uses and access methods; processes for evaluating commercial recreation applications; and objectives for all zones in the M-KMA. Specific management directions or desired future conditions for six categories of the 41 Resource Management Zones that make up the M-KMA are also set out. A summary of these directions is described in the following table.

Recreation Management Plan for the M-KMA

Resource Management Zone Category	Management Direction (Desired Future Condition) ¹
I. Small Provincial Parks	• Protection of special features is paramount • Signs kept to a minimum • No tenured developments and camps • Essentially undisturbed, unmodified environment • Minimal site modifications Original M-KRMP only: • Little chance of human contact • Small party sizes • Few campsites and developed trails • Non-motorized access, except for motorized boats • Posting of signs for: Safety / Boundaries / Enforcement purposes are permitted other signs are generally not allowed
II. Large Remote Resource Management	• Essentially unmodified environment • Few facilities and developed trails • Low levels of air and water transport • Little chance of human contact • Original M-KRMP only: Except along travel corridors and at high destination points • Generally small party sizes • Signs kept to a minimum • Managed motorized access Original M-KRMP only: • Little motorized access • Posting of signs for: Safety / Boundaries / Enforcement purposes are permitted within Provincial Parks other signs are generally not allowed
III. Major River Corridors	Original M-KRMP only: • Essentially unmodified environment • Few facilities and developed trails • Significant motorized water transport • Occasional human contact • Small to moderate party sizes

¹ Note: Management directives have been modified from those in the original M-KMA Recreation Plan

Resource Management Zone Category	Management Direction (Desired Future Condition) ¹
IV. Large Resource Management Zones	Original M-KRMP only: • Environment ranges from essentially unmodified to modified • Facilities are rare and isolated • Developed trails are common near watercourses and water bodies and through mountain passes • Significant motorized water, air and vehicle (ATV) transport access • High motorized use levels along rivers and motorized trails in summer and fall • Human contact ranges from rare to frequent • Small to large party sizes • Posting of signs for: Safety / Boundaries / Enforcement purposes are permitted within Provincial Parks other signs are generally not allowed
V. Alaska Highway Corridor	Original M-KRMP only: • Environment ranges from unmodified to intensely modified • Facilities and trails are common • High levels of motorized transport, especially during high tourism periods • High chance of human interactions, especially close to highway • Recreation activities that enhance highway-based tourism are promoted • Signs are allowed with appropriate government agency approval
VI. First Nations Community Core	Mackenzie Addition's RMP only: • Environment ranges from essentially unmodified to potentially modified • Facilities are rare and isolated • Developed trails are common near watercourses, water bodies and mountain passes • Managed access measures occur • Human contact ranges from rare to moderate • Small to large party sizes • Signs are generally not allowed

Recreation Activity Guidelines (Appropriate Activities)

With some exceptions, applying recreation activities traditionally enjoyed in the M-KMA are considered acceptable. In some circumstances, however, recreation activities may not be appropriate. Examples of such situations may occur in areas featuring sensitive wildlife habitat or terrain/vegetation features, to protect special features or, in areas of moderate-to-high recreation use, to protect the wilderness recreation experience. Determining these specific features and values as well as appropriate recreation activities and levels will be developed in more detailed planning processes (including Forest Service recreation planning, park management planning, wildlife management planning and others) and through First Nations', stakeholder and public consultation.

Review of Commercial Recreation Proposals

The legislation, policies and guidelines of Land and Water British Columbia Inc. and BC Parks under direction of Water Land and Air Protection (WLAP) presently guide the review of commercial recreation proposal applications. This plan recognizes the uniqueness of the M-KMA. The intent of the plan is to ensure recreational activities are consistent with the *Muskwa-Kechika Management Area Act*. Seven principles for government to consider when evaluating commercial recreation applications in the M-KMA are presented. The following is a summary of these principles.

❖ Maintain and Protect Ecological and Environmental Integrity

The maintenance and protection of wildlife populations and the wilderness environment of the M-KMA must be considered in the review of commercial recreation applications. Commercial recreation applications should include:

- an assessment of how the proposed development and activities will affect the wildlife and wilderness qualities within the area of interest; and
- methods for:
 - identifying the sources of risk and potential for impacts on:
 1. biophysical and other values,
 2. on other tenure holders and land users,
 - to avoid, minimize or mitigate those impacts.

❖ Consider Rights and Interests of First Nations

Several First Nation Communities have interests and traditional territory within the M-KMA. They include Treaty 8 First Nations, Kaska Dena First Nations and the Tsay Keh Dene First Nations.

- In order to ensure that aboriginal interests are considered appropriately, Provincial organizations must consult with First Nations about those interests before issuing commercial recreation tenure.
- Consultation with First Nations must be:
 - diligent;
 - reasonable;
 - meaningful;
 - carried out in good faith; and
 - carried out with the intention of fully considering and addressing aboriginal interests.

❖ Maintaining Public Access and Use

Maintaining historical and future public access and use is a priority. The review and evaluation of commercial recreation applications must consider the effects the proposed activities may have on existing and future public access and use. Commercial recreation proposal evaluations must also consider the extent to which the applicant has communicated with the public recreation sector.

❖ Be Cautious in Allocating Commercial Recreation Interests

Precise capacity thresholds for various types of recreation activities in the M-KMA have not yet been determined. Time is required to assess the full impacts of existing and newly allocated commercial recreation activities, tenures and permits, and to determine appropriate thresholds. Therefore, it is

incumbent on managers to take a conservative, cautious approach to issuing approvals for commercial recreational activities and tenures while these thresholds are being determined.

❖ **Leave Room for Future Allocations**

It is important to not fully allocate commercial recreation permit rights across the M-KMA in order that new commercial recreation activities can be considered in the future. This is a particularly critical issue for First Nations. Time is required so that commercial recreation policies and application procedures can be communicated, and the capacity to develop applications can be built.

❖ **Give Preference to Applicants with Good Track Records**

Applicants with a good track record of operating within the guidelines, policies, and regulations in respect of commercial recreation and related matters, should have preference over those who have a poor track record. This should not, however, limit the fair consideration of proposals from new applicants who have no track record of operating CR businesses.

❖ **Involve Local Residents in Commercial Recreation Activities**

In order that northern residents benefit from economic development initiatives, including commercial recreation ventures, operators should be encouraged to hire local residents and demonstrate how the proposed business will benefit the economy of the northeast.

Monitoring

Monitoring is the regular assessment of a situation or management program that provides information on the success of management decisions. The results of monitoring provide the basis for determining whether the desired future conditions for the M-KMA are being achieved.

Elements of the resource setting or physical environment to be monitored include: facility levels; trails and motorized routes; prescribed burns and range tenures/conditions; and campsite development. In addition, a number of factors related to recreation experiences of users (social setting) will be assessed. These include: commercial and public use levels; the size of recreation groups or parties; the degree of contact between recreation groups (encounter levels); and the frequency of contact between recreationists and management personnel. Other elements that will be tracked include incidents related to: search and rescue; conflicts between users and between users and wildlife; environmental degradation; and encounters between humans and bears.

Recommendations

A total of 24 recommendations are outlined in this report. These include the following broad categories:

- ❖ information collection and research;
- ❖ policy issues;
- ❖ enforcement issues;
- ❖ education issues;
- ❖ CR application process; and
- ❖ plan implementation and future planning.

Plan Implementation and Review

An implementation schedule for carrying out the actions and recommendations is identified in the original M-KRMP and discussed within the Mackenzie Addition plan. The former document contains 22 specific action items, providing target completion dates for each action. It also calls for a complete review of the plan within five years or earlier if needed with annual reviews to be carried out by the appropriate government agencies.

New directions regarding Government Policy and Agency organization have resulted in changes to the allocation of available resources for plan monitoring. As such, this component of the original plan was not undertaken within the Mackenzie Addition's planning process.

INTRODUCTION

Background

Few places in the world can match the significance of the Muskwa-Kechika (pronounced musk-quah ke-chee-kah) area. Consisting of 6.3 million hectares, the Muskwa-Kechika is a showcase of mountains, biological diversity and people who depend upon the living wealth of this ecosystem.² This area also remains as one of North America's last true wilderness areas south of the 60th parallel (see Figure 1). Rich in untouched beauty, intact ecosystems, natural resources and abundant animal life, the Muskwa-Kechika area has local, regional, First Nations, national, international and global ecological significance.

Through the dedication and hard work of land and resource planning tables in Fort Nelson, Fort St. John and Mackenzie, consensus was reached on land-use in the M-KMA. They agreed that the area was unique and should be managed as a special management area, which would allow resource development to continue while recognizing, accommodating, and protecting important wildlife and environmental values in the area. Recommended within the Fort Nelson and Fort St. John LRMP's, a board was appointed to advise government on management of the area as well as the creation of a special trust fund to support special projects and planning initiatives within the Muskwa-Kechika.

Approved by an Order in Council in December 1997, the Muskwa-Kechika Management Plan balances resource management with conservation, making it an excellent example of how interests that were once in competition have found a way to co-exist on the land. More than two million hectares have been permanently protected with the creation of 13 new provincial parks. These areas are surrounded by more than four million hectares of special management zones where wilderness and wildlife habitat will be maintained over the long term while resource development such as logging, mineral exploration and mining, and oil and gas exploration and development will be allowed in a way that is sensitive to wildlife and environmental values. In all, the M-KMA is the largest and most innovative package of provincial parks, protected areas and special management zones in British Columbia.

In June 1998, the Provincial government passed legislation establishing the original portion of the M-KMA and, thereby approved the recommendations from the Fort Nelson and Fort St. John Land and Resource Management Plans (LRMPs). And in 2001, following completion of the Mackenzie LRMP, the Province added an additional parcel into the M-KMA, increasing the total area by approximately 50 percent.

Section 8 of the *Muskwa-Kechika Management Area Act* specifies that the approval of a recreation management plan is a prerequisite to the approval of commercial recreation tenure within the M-KMA.

The following management plan contains recreation directives for both the original portion and the Mackenzie Addition portion of the M-KMA.

² Chadwick, Douglas H. 2000. National Geographic Destinations: Yukon to Yellowstone. Washington, DC. p.30.

Purpose and Objectives

The primary purpose of this plan is to produce an overview assessment of recreation resources in the M-KMA consistent with LRMP management objectives and strategies and the *Muskwa-Kechika Management Area Act*. More specific objectives of the plan are to:

- ❖ identify appropriate commercial and public recreation activities/levels for Resource Management Zones (RMZs);
- ❖ provide principles to guide review of Commercial Recreation (CR) applications;
- ❖ provide principles to guide future recreation management planning in the area;
- ❖ identify priority areas for more detailed local strategic recreation management planning; and
- ❖ provide mechanisms for ensuring that in the future, the plan can be amended with more detailed or updated management prescriptions that will be implemented, monitored, and evaluated as required.

Plan Organization

This plan contains 11 sections and a number of appendices:

The first section provides background information regarding the plan's rationale, purpose, objectives and organization. It also provides an overview of the M-KMA with respect to its location, unique attributes, and recreation-related significance.

The second section provides information regarding the process involved in establishing this plan.

The third section describes planning and management guidelines and principles established for recreation activities in the M-KMA.

The fourth section reviews methods used to gather zone-specific as well as general recreation-related data.

The fifth section outlines broad baseline recreation data for each Resource Management Zone (RMZ).

The sixth section reviews ecological factors requiring consideration in the process of assessing the effects of recreation.

The seventh section outlines each zone's objectives and desired future conditions as they related to recreation activities.

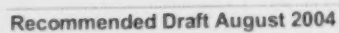
The eighth section outlines principles developed to guide review of CR tenure applications.

The ninth section provides a plan for monitoring recreation management activities and use.

The tenth section outlines a list of recreation planning and management strategies for the M-KMA.

The eleventh and final section contains an abbreviated version of the original M-KRMP's description of plan implementation, timeline schedules and designated responsibilities.

Figure 1. Map of the M-KMA



Planning Area Overview

Original M-KMA Unit

The Rocky Mountain region, known as the Muskwa-Kechika, is a vast wilderness area in northern British Columbia (BC). The M-KMA is one of the few remaining large, intact and almost unroaded areas south of the 60th parallel. The M-KMA supports a diverse number of large mammals including moose, elk, mule deer, whitetail deer, caribou, plains bison, mountain sheep, mountain goat, wolves, black bears and grizzly bears. The area encompasses the eastern foothills of the Muskwa range, the Kechika ranges of the Cassiar Mountains, and the northern portion of the Rocky Mountain Trench.

The M-KMA area has tremendous cultural and heritage significance. Traditionally, and for thousands of years, the land has been used by First Nations for hunting, fishing, trapping, gathering, settlements, camps, recreation, and spiritual fulfillment. There are a number of archaeological sites in the area. These include: a historic fur trading route with trapper cabin sites; the remains of a Hudson's Bay Trading Post; a historic commercial fishery site; a native village abandoned after World War II; native pack trails; and an old wagon trail.

The Treaty #8 territory includes the entire M-KMA and part of the M-KMA is within the traditional territory of the Kaska Dena First Nation. The Kaska Dena call the area Dena Keyih (pronounced den-ah key-ah), which means "people's land" in their traditional language.

Within the M-KMA there is a high level of recreation use, which is derived from outdoor-related activities. Outdoor recreation use occurs across a range of settings, both on land and water, from remote wilderness experience with low probability of encountering other users to highway based recreational activities. Recreational activities include hiking, hunting, camping, trail riding, wildlife viewing, fishing, canoeing, jet boating, ATVing, rafting, cross country skiing and snowmobiling. The M-KMA provides a variety of outdoor experiences from relatively undisturbed natural settings to areas modified by development and accessible by the public. Scenic areas and the opportunities to access wildlife and fisheries resources also contribute to the potential for a range of recreation opportunities.

Commercial recreation providers offer a range of services to recreationists within the M-KMA. They are an important component of the local economy and backcountry tourism industry. Over 20 guide-outfitting businesses operate within tenured areas in the M-KMA. Guided hunts and fishing excursions have been the traditional sources of income for this sector. Transportation providers, such as air charters, and horse and riverboat packers, have also serviced hunting and fishing enthusiasts over the years.

With the growing demand for non-consumptive recreational activities, a number of commercial operators began to expand their businesses to include activities such as guided hikes, trail rides, wildlife viewing, etc. In the mid 1990's, new government policy was introduced to better manage all forms of commercial recreation on Crown land. Currently, there are a variety of commercial operators within the M-KMA that conduct a wide range of commercial recreation services.

Mackenzie Addition Unit

Located within northern British Columbia, the Muskwa-Kechika is considered to be one of North America's few remaining large wilderness tracts. Consisting of 6.3 million hectares, the M-KMA is a showcase of mountains, biological diversity and people who depend upon the living wealth of this ecosystem.³

³ Chadwick, Douglas H. 2000. National Geographic Destinations: Yukon to Yellowstone. Washington, DC. p 30

Flanked by rugged mountain ranges, the Mackenzie Addition runs north-south along the Rocky Mountain Trench (see Figure 1). The Kechika, Sifton and Finlay complexes run in a north-south band along the western side of the Trench, while the Muskwa Range spans throughout the Trench's eastern side and is considered to be part of the Northern Rocky Mountains complex. Large rivers flowing through the Trench include the Kechika, the Fox and the Finlay. Vegetation is classified within the Sub-boreal Interior Eco-province in the south and Northern Boreal Mountains Eco-province in the north.

The plan area's vast, unroaded wilderness tracts provides contiguous wildlife habitat, able to support intact large mammal predator-prey systems. Additional sensitive features include, but are not limited to, large wetland complexes and unique geological formations.

High cultural values are also held by the area's First Peoples: the Kaska Dena, whose traditional territory covers most of the plan area and, to a smaller extent, the Tsay Keh Dene. Archaeological evidence suggests residence dating back thousands of years, with ancestors following retreating ice after the last ice age.⁴ The actual boundary of the Mackenzie Addition plan area occurs outside of First Nations' communities, however the villages of Kwadacha and Tsay Keh are situated close to the area's southern boundary.

Additional values associated with Mackenzie Addition include commercial and public recreation, forestry, mining and trapping. Given the area's remote nature, public recreation in the plan area is generally enjoyed by local residents of Kwadacha and Tsay Keh villages. A relatively small number of BC residents come to the area to enjoy fishing, hunting and, other activities such as hiking, paddling and wildlife viewing. Due to the remoteness and limited number of roads, access within the plan area is generally limited to floatplanes and jet boats.

Commercial recreation activities in the area are summer-based and include guide-outfitting, fly-in fishing, river rafting, horseback and jet-boat guiding and hiking/wildlife viewing. A total of twelve guide-outfitters operate in the plan area, facilitating the most steady, long-term flow of backcountry recreationists to the area. Approximately three floatplane operators fly clients into accessible lakes to pursue hunting, fishing, rafting and other wilderness recreation activities. Two wilderness rafting companies are known to operate in the Mackenzie addition as well as one wilderness hiking/horseback riding guide. Finally, two commercial packers operate in the study area.

With respect to trends, due to the study area's remote locale with limited access, overall use patterns are generally forecast to grow slowly. Growth in leisure activities is however, predicted to occur due to the increasing levels of significance placed on remaining wilderness settings within North America.

⁴ Mackenzie LRMP, 2000.

PLANNING PROCESS

The purpose of the recreation management planning process was to develop guidelines to give direction to recreation development and activities in the M-KMA that would:

- ✧ serve as the Recreation Management Plan until such time as more detailed local strategic recreation management planning can be conducted for all RMZs in the M-KMA;
- ✧ contribute to the management of the M-KMA as an ecological whole;
- ✧ provide direction and guidance for operational activities;
- ✧ serve as an information reference for resource managers, recreation resource users, tenure holders and the general public; and
- ✧ use fair, open and meaningful consultative processes that take into account locally, regionally and provincially established priorities and public interests.

Phase 1: Original M-KRMP Strategy

M-KMA Recreation Management Working Group

In June 1998, a Working Group (WG) was formed by government to begin the development of the Recreation Management Plan for the entire M-KMA, including provincial parks. The initial group consisted of representatives from the following provincial government line agencies responsible for managing recreation resources in the M-KMA: Ministry of Forests (Fort Nelson and Fort St. John Forests Districts); Ministry of Environment, Lands and Parks; and the Ministry of Small Business, Tourism and Culture. In February, 1999 representatives from the Kaska Dena Council and the Muskwa-Kechika Advisory Board were added to the group. In June 1999, representatives from the Fort Nelson First Nation joined the group. In March, 2000, a representative from the Prophet River First Nation joined the group. Working group members and the organizations they represented are listed in Appendix 1.

In its Terms of Reference, the Working Group was charged with summarizing and assessing the following factors to achieve the purpose and objectives of the plan:

- ✧ concerns and issues related to the demand and supply of recreation opportunities;
- ✧ the elements of the recreation inventory and the identification of inventory gaps that need to be filled; and
- ✧ current levels of recreation use, the demand for recreation opportunities and the value of outdoor recreation and any information gaps that require further research.

In addition, the Working Group was instructed to conduct activities to meet the following process objectives:

- ✧ to provide resource agencies, recreation resource users, industry, First Nations, resource tenure holders and the general public with opportunities for participation throughout the planning process;
- ✧ to seek consensus among WG members using principles of shared decision-making. Where consensus cannot be reached, the areas of disagreement will be documented and handled through the dispute resolution process;
- ✧ to work within the framework of existing government policies and all applicable legislation; and
- ✧ to involve the Kaska Dena Council in the planning process, consistent with the *Letter of Understanding amongst the Government of British Columbia and the Kaska Dena Council*, September 24, 1997.

First Nations and Public Involvement

Members of First Nations and the general public have been continually involved in the planning process. Initial involvement took place in the information-gathering phase (January through June 1999). Scores of individuals came to open houses to inform the Working Group of the issues and concerns related to the management of recreation resources in the M-KMA. As well, they contributed suggestions on what the recreation plan should address.

In addition to open houses, dozens of individuals, clubs and organizations, and First Nations' members participated in detailed interviews to provide site-specific information on recreation use and value. A number of these same individuals periodically contacted members of the Working Group during the planning process to provide additional input and support for the process.

First Nations and public involvement concluded in a full public review of the draft plan (August through October, 2000). Copies of the draft were sent to nearly 250 individuals and groups for their review and comment. The Working Group conducted another series of open houses in northeastern communities, during October and November 2000, to discuss the draft plan and solicit comments. Public review comments on the draft resulted in a number of revisions to the final plan.

Planning Steps and Timeline

The following table shows the primary steps in the planning process and timelines.

Table 1. M-KMA Recreation Management Plan (M-KRMP) Planning Activities

Planning Activities	June 1998	Sept. 1998	Jan- June 1999	July- Aug. 1999	Sept- May 1999/00	June 2000	July- Sept. 2000	Oct. 2000	Dec. 2000
Working Group Formed	X								
Terms of Reference Approved		X							
Information Gathering: Open Houses		X							
Stakeholder Interviews									
First Nation Interviews									
Campsite and Range Inventory/Assessments				X			X		
Recreation Analysis and Draft Plan Development				X					
Draft Plan Completed					X				
Draft Plan Review by Gov't, MK Board and First Nations					X				
Draft Plan Review by the Public						XXXX	XXXX		
MKRMP Approval									X

Phase 2: Mackenzie Addition RMP Strategy

Commencing in January 2002, the Mackenzie Addition's recreation management planning process took a different format than that of the original MKRMP. Rather than a working group arrangement, planning took the form of stakeholder workshops, one-on-one stakeholder meetings, as well as long-distance communication with additional groups and individuals.

The onset of this process involved disseminating letters of information and invitation to participate to groups and individuals identified as potential stakeholders. In February, a planning workshop occurred in Mackenzie. At this time, zone-specific values, interests, and concerns were documented. Review of existing zones (as laid-out in the original M-KMA) also occurred and the development of a sixth zone more appropriate to the needs of the Mackenzie Addition. Based on this preliminary meeting, a first draft was developed and circulated for review in April, 2002. At this stage, a number of zone-specific information gaps regarding recreation-related values and resources were present.

Due to internal changes in Provincial management of the M-KMA, fiscal funding for the project was not renewed until November 2002. An update letter was distributed to M-KMA Board members in December. Following this, a gap analysis of zone-specific information was conducted, which resulted in a request for more zone-specific recreation-related information from key stakeholders and interest groups. A trip to Fort St. John also occurred, where one-on-one interviews were conducted with existing commercial recreation operators — mainly guide-outfitters.

Based on receiving this additional baseline information, a meeting was held with representatives of the Kaska Dena Council to review and include this First Nation's interests, values and concerns.

The second draft of the Mackenzie Addition report was reviewed by members of the M-KMA board, an external reviewer (Dr. Ron Rutledge), First Nations governments, tourism and recreation stakeholders.

Based on input received, this third and final draft was written and published on the web. Correspondence was sent to all interested stakeholders informing them of the publication. In January of 2004 an open house was held in Mackenzie to discuss Draft 3 and solicit public input. Also in January, an open house was scheduled in Kwadacha. Comment on the plan was limited at this meeting, because of community sympathy for a member who had passed away. All comments received during the public review of Draft 3 have been considered in the formulation of the final document recommended for approval.

First Nations

The Mackenzie Addition of the M-KMA occurs within the traditional territories of the Kaska Dena and Tsay Key Dene First Nations. The dividing line is on the Akie River, with territory to the north belonging to the Kaska Dena, and to the south, to the Tsay Keh Dene.

With a mandate to work with First Nations on a government-to-government basis, strategies have occurred to fulfill this obligation. To achieve this, one workshop was held with representatives of the Kaska Dena Council (KDC) to review the first draft and contribute cultural information. Additional communication occurred during an M-KMA Board Meeting, where Kaska Dena and Tsay Key Dene representatives were present to review the second draft's content. Circulation, review and consultation regarding the third draft also occurred prior to producing the final, amalgamated management plan.

Planning Steps & Timeline

The following table shows the primary steps in the planning process and timelines.

Table 2. Mackenzie Addition Project Planning Steps and Timelines

Planning Activities	Jan. 2002	Feb. 2002	April 2002	Dec. 2002	Jan.-Mar. 2003	Apr.-July 2003	Aug-Oct. 2003	Nov 2003- Jun 04.
Disseminate letters of information/invitations to participate to key stakeholders & government agents	X							
Stakeholder Workshop, Mackenzie		X						
Establish Draft #1			X					
Project update letter disseminated				X				
Conduct Gap Analysis					X			
Stakeholder Interviews, Ft. St. John						X		
Kaska Dena Meeting, Prince George & Establish Draft # 2						X		
Review Draft # 2						X		
[?Kaska Dena Meeting]						X		
M-KMA Board Mtg. & Plan Review, Ft. Nelson						X		
External Review of Draft #2							X	
M-KMA sub-committee review							X	
Establish Draft # 3								X
Review & Amend Draft #3								X
Establish Final RMP						X(2004)		

Planning and Management Issues and Concerns

Original M-KRMP

A variety of issues, concerns and existing or potential problems associated with the planning and management of recreation resources in the M-KMA were identified at open houses and in interviews with First Nations, government agencies and stakeholders. Many of the issues were associated with government policy, or were questions surrounding the process of recreation management planning in the area. Of the rest however, four or five types of issues dominated. Of the over 300 comments received, comments on general management issues (63 or 20 percent) were by far the most common, followed by enforcement issues (25 or 8 percent), user conflicts (23 or 7 percent), site specific issues (23 or 7 percent) and general concerns regarding increasing use levels (23 or 7 percent).

Many people have the perception that there is overuse of the M-KMA with regard to some aspects of recreation, or that there is a high potential for overuse in the near future. Many concerns were expressed regarding overuse of specific sites, and more general concerns were frequently expressed about the large number of certain types of facilities or activities (e.g., campsites; river boat traffic). Related to the potential for overuse were concerns about ease of access to remote areas, through the use of industrial roads, ATVs, aircraft, and river boats.

Another dominating concern was that of environmental degradation. Negative environmental impacts, of course, are closely related to, and often result from recreational use. Again, several issues or concerns identified in this regard were site-specific. Others, more general in nature, included: destruction of wildlife habitat; increased pressure on game animal populations; erosion along horse trails and at campsites; garbage; water pollution by float planes and river boats; and a general deterioration of the wilderness values of the area.

Countering to some degree concerns about present-day overuse and environmental degradation, a number of people expressed the need for actions that would promote increased use of the M-KMA, thus providing more economic opportunities. Proposed actions included: government promotion of the area as an outdoor adventure tourism destination; more regularly scheduled air flights to communities that serve as entry points to the M-KMA; techniques such as controlled burns and predator control to enhance populations of game animals; extension of the hunting season; stocking lakes with fish; more efficient processing of CR applications; and infrastructure development within the area, including access roads, snowmobile and cross-country ski trails; and trail markers and trail heads.

Potential conflicts among different categories of people who use the M-KMA were often identified as being of concern. These tended to fall into three different categories:

1. between different recreation participant types — e.g., non-commercial use vs. commercial use; hunters vs. non-hunters; packers vs. guide-outfitters;
2. overlapping tenures — e.g., between CR operators and trappers; between CR operators and resource industries; and
3. between recreational use and traditional use by First Nations' people.

There was a strong message to government that policy to resolve conflicts between packers and guide-outfitters had to be developed. There was an equally strong message that local individuals, First Nations and firms should have preference over non-locals to CR opportunities in the M-KMA.

Another issue of major concern was that of enforcement. The need for increased enforcement of regulations and the need for funding to allow adequate enforcement were often expressed. In arguing that a greater enforcement presence was required, participants cited present-day illegal or unethical activities such as: non-licensed commercial operators; the use of industrial roads to gain access to remote parts of the M-KMA; the abandonment of meat by hunters; the reservation of campsites for exclusive use by leaving tents and supplies in place over long, unoccupied periods; and thefts from cabins belonging to First Nations' people.

Finally, the need for education, for both commercial operators and visitors to the M-KMA, was raised in a variety of forms. It was felt that visitors needed to be educated as to the inherent dangers in backcountry recreation activities, and required assistance through tools such as trail markers and information at trailheads. Education in what might be described as "best operator practices" was identified as a priority for commercial operators.

These were the most common issues identified in the information gathering exercise. These issues are based on the opinions expressed by those who participated in the information gathering exercise. While the exercise provided a good base of information upon which to build a recreation management plan for the Muskwa-Kechika, it was the responsibility of the Muskwa-Kechika Recreation Management Plan Working Group to anticipate and consider issues and concerns of individuals or groups whose opinions, for whatever reason, were not well documented during the process.

The Province of British Columbia is committed to avoiding the infringement of treaty and aboriginal rights. Meaningful consultation with First Nations on land use and other matters is a fundamental tenet of this commitment. To this extent, the Ministry of Sustainable Resource Management (MSRM) along with other provincial agencies continue to consult, inform and seek input from First Nations on resource management planning within the M-KMA. It is clear that much work still needs to be done to incorporate the values and concerns of First Nations into the M-KMA recreation management planning process. Also the Muskwa-Kechika Management Board is currently revising their governance structure which will improve First Nation representation and enhance opportunities for participation in resource management of the M-KMA.

Mackenzie Addition RMP

Due to the Mackenzie Addition's remote nature, difficult access and lack of major development, this unit's planning and management issues do not appear to be as extensive as those determined in the M-KRMP.

With a general interest in using a precautionary management approach however, the general concerns raised in the M-KRMP are present for the Mackenzie Addition of the M-KMA. This includes concerns regarding environmental degradation, potential overuse at specific sites and the need for enforcement.

Some additional concerns raised over the course of the planning process include the following:

- ✧ lack of baseline data regarding recreation resources and values. This includes an incomplete Recreation Resource Inventory for the Mackenzie Addition;
- ✧ lack of follow-through regarding the M-KRMP's implementation and monitoring strategies;
- ✧ the potential implications of a permanent road access up the west side of Williston Dam;
- ✧ fishing in sensitive high elevation alpine lakes; and
- ✧ permanent CR infrastructure within the Kaska's traditional territory.

The above issues and concerns have been incorporated into the zone-specific directives and the associated guidelines for appropriate activities.

RECREATION MANAGEMENT FRAMEWORK

The Fort Nelson, Fort St. John and Mackenzie LRMPs developed general management directions for a number of values associated with outdoor recreation in the M-KMA. In addition, strategic management objectives and strategies for achieving these objectives were developed for each RMZ and new provincial parks. The government approved management directions, objectives and strategies provide the foundation for the M-KMA's recreation management framework. Appendix 2 describes the administrative framework for recreation management in the M-KMA, along with a summary of the role of provincial government agencies with recreation management related mandates. The following sections set out recreation planning and management guidelines and principles that will bring consistency to the decision-making process for the area.

Planning and Management Guidelines

The basic premise underlying the management of the Muskwa-Kechika is that the entire area will be managed as an ecological whole. This demands that any local strategic plan developed for a particular resource component recognizes and acknowledges its relationship to the area as a whole with strict adherence to the concept of integrated and adaptive ecosystem management.

The following sections provide broad guidelines regarding the scope, scale, principles, objectives, participation, dispute resolution, and revision of local strategic recreation plans in the M-KMA. These guidelines have been developed to ensure consistency with the management objectives and strategies outlined in the Muskwa-Kechika Management Plan and the Fort Nelson, Fort St. John and Mackenzie LRMPs. In addition, adoption of these guidelines by the line agencies responsible for recreation planning and management will help ensure coordination and consistency of local strategic recreation plans.

Scope

Local strategic recreation plans will be developed to ensure the maintenance of the M-KMA's wilderness characteristics, fish, wildlife and their habitats and provide for a spectrum of recreation opportunities, which have minimum impact on the area's natural settings.

Plans should address all aspects of public and commercial recreation use of the area including the acceptability of recreation activities, use levels, infrastructure developments, access, methods of travel (both into and within the area), impact levels, and management activities. In addition, recreation plans should consider any concerns/issues related to site-specific features or qualities.

Scale

The Muskwa-Kechika Management Plan states that a "local strategic recreation plan" is prerequisite to the approval of operational activities within the area. Normally, a recreation management plan is developed for landscape units or combinations of landscape units. However, to take advantage of planning efficiencies and/or accommodate local planning priorities, plans can also be developed in conjunction with and covering the same geographical area as other local strategic plans, such as pre-tenure plans for oil and gas or fish and wildlife management plans. Whatever spatial unit is chosen, all component plans for the M-KMA should be integrated and coordinated.

Objectives

Without recreation management plans derived from orderly planning processes, recreation management may be no more than a series of uncoordinated reactions to immediate problems. Through planning, managers can reconcile differences in management philosophy and ideas before taking actions that have long-range effects on the values of the M-KMA.

The objectives of local strategic recreation planning are as follows:

- ✧ to inventory existing recreation features, use and biophysical and social conditions;
- ✧ to determine any concerns/issues related to site-specific features or qualities;
- ✧ to determine the acceptability of public and commercial recreation activities and uses, use levels, infrastructure developments, access, methods of travel (both into and within the area), and impact levels;
- ✧ to establish clear, attainable, measurable and acceptable desired future conditions for the planning area in written recreation management plans; and
- ✧ to develop suitable monitoring and evaluation objectives and strategies.

Participation

When considering the scope of "involvement" in recreation planning, it must be recognized that ownership of plans by First Nations and all interested stakeholders is necessary for successful implementation, especially in the "multi-value" M-KMA.

While each line agency responsible for recreation planning in the M-KMA will have its own client base and group of interested stakeholders, the parties to this agreement recommend that the principles (see the following section titled "Planning and Management Principles") related to "Partnerships in Planning," "Relationships with First Nations," and "Cooperation and Coordination with Other Agencies" be followed when deciding the extent of participation in planning efforts. All significant requirements of the Muskwa-Kechika Management Plan, including local strategic planning, must follow the consultation and notice provisions in section 5.3.1 and 5.3.2 of the Muskwa-Kechika Management Plan.

Recreation Plan Enactment

The Enactment of a recreation management plan requires an order from the Ministry of Sustainable Resource Management or a person or a class of persons designated by the minister. (*Bill 22__2002, Sustainable Resource Management Statutes Amendment Act, 2002*)

Dispute Resolution

Resolution of recreation planning and/or recreation management disputes between line agencies and their recreation clients and stakeholder groups will normally be resolved using that agency's dispute resolution processes. If the issues cannot be resolved at that level, the dispute would then proceed to the Inter-Agency Management Committee (IAMC) for resolution.

Plan Revision

Recreation management plans should be reviewed and revised periodically to ensure that stated management objectives are being achieved and to address new concerns or issues that have arisen since the plan was implemented. Any revision of a local strategic recreation plan must comply with the consultation and notice provisions set out in sections 5.3.1 and 5.3.2 of the Muskwa-Kechika Management Plan.

Planning and Management Principles

Recreation planning and management is complex, particularly in an area as large, diverse and environmentally sensitive as the M-KMA. It is, therefore, important that a decision-making rationale produce solutions that are compatible with the values for which the area was given special status. The adoption of a set of management principles for the area can help bring a high degree of consistency to this decision-making process.

Each of the line agencies responsible for different aspects of recreation management within the M-KMA has its own set of principles to guide their various recreation management programs. Most of these principles have been approved at the Cabinet level and include: "Guiding Principles for Protected Area Management;" the former British Columbia Assets and Land Corporation (BCALC)'s CR Policy "Strategic Principles;" and the Ministry of Forests "Wilderness Management Principles." While each set of principles was developed to guide specific agency mandates, they are, in many respects, very similar.

The following principles or fundamental assumptions have been adopted by the various line agencies in an attempt to: (1) help both managers and users of the M-KMA make decisions which will be consistent with the objectives and strategies of the Muskwa-Kechika Management Plan; (2) integrate and coordinate their local strategic recreation planning efforts and management activities; and (3) provide guidance to develop and implement effective recreation plans. The first set of principles (1-8) will guide decision-making related to technical aspects of recreation planning and management. Principles 9-12 refer more to administrative procedures or how decisions are made.

Principle 1: Environmental Stewardship

Maintaining and conserving essential ecological processes and variety in nature (biological diversity) is a vital contribution to provincial, national and global conservation efforts. The M-KMA will be managed in a manner that respects natural ecological systems and maintains wilderness characteristics, wildlife, fish and their habitats.

Principle 2: The Non-Degradation Concept

This principle recognizes that conditions of naturalness and solitude vary between RMZs within the M-KMA. The objective is to prevent degradation of naturalness and solitude in the area and restore substandard settings to minimum acceptable levels, rather than letting all areas deteriorate to a minimum standard.

To a degree, under this principle, the conditions prevailing in each zone when it was designated, establish the benchmark of naturalness to be sought by management. However, the management of conditions of naturalness and solitude in a particular RMZ must be consistent with objectives and strategies as identified in the Muskwa-Kechika Management Plan.

Principle 3: Manage Human Influences

A principle goal of management in the M-KMA is the maintenance of ecological processes. Thus, management is, to a large extent, concerned with the management of human use and influences to conserve ecological processes. Human influences include recreational activities, which can affect biophysical and social conditions. Therefore, recreation management's intent is to guide, modify and, if necessary, to directly control recreation facility development and use to minimize their impact on natural ecological processes.

Principle 4: Guide Management with Objectives for Specific Areas

Recreation management in the M-KMA will be guided by formal plans that state goals and objectives and explain in detail how they will be achieved. Without such clear prescriptions, management can become

uncoordinated and even counterproductive to the goals for which the area was designated. Local resource managers and recreation users of the area need recreation management plans to consider whether strategies and actions are appropriate for specific areas and are consistent with the Muskwa-Kechika Management Plan.

Recreation management objectives must be clear statements of desired future conditions, and proposed management actions must be evaluated for their potential contribution to a specific objective. Objectives are also essential to monitoring progress and evaluating the success of recreation management. Because the goals of the M-KMA are diverse, it is difficult to write clear objectives for the various aspects of recreation management. But it is crucial to develop, through an orderly planning process, the clearest and most specific objectives possible and to use them as constant guides to management.

Principle 5: Determine Acceptable Activities and Developments

Recognition and special consideration will be given to existing tenures, licenses, authorizations and public and commercial recreation use, where those uses are compatible with the management objectives and strategies in the Muskwa-Kechika Management Plan. Uses that have been approved for continuation will be fully respected.

Allowable recreation activities and uses should draw their meaning from association with, and direct relation to, the natural, cultural and recreation values of the area. All recreation activities will be assessed in regard to their impact on the ecological systems and the key natural, cultural and recreation values of the particular RMZ within the M-KMA. Developments should directly complement the management objectives and strategies recommended for particular resource management zones within the area.

Recreation planning must also consider the implications and potential impacts from recreation development and use on other resource management goals and activities such as resource extraction and First Nation's use.

Principle 6: Zoning

A diversity of physical and biological features and recreation experiences can be found in the M-KMA. To maintain this diversity in the future, a variety of management actions will be needed. Zoning is a useful tool that can help provide for a diversity of biophysical and social settings and help achieve clearly defined objectives for different areas. In addition, use of the concept of zoning can potentially reduce the conflicts among incompatible values (e.g., motorized vs. non-motorized use) and permit retention of values voiced by different segments of the recreating public.

An acceptable recreation activity may not be appropriate in all RMZs or in all parts of a particular zone in the M-KMA. Zones within the area may range from areas that accommodate and/or enhance intensive recreation opportunities (e.g., guide/outfitting base camps) to areas that exclude public access to protect fragile and vulnerable ecosystems and sensitive, rare or endangered species (e.g., within Ecological Reserves, [ER]).

Principle 7: Determine the Limits of Acceptable Change

The M-KMA has limited capacity to absorb the impacts of recreation use and still retain its wilderness character, wildlife and habitat. Increased use has the potential to alter the wilderness values of the M-KMA. These changes may be general over wide areas or localized to specific sites. Impacts to wilderness may also take place over a variety of time scales, varying from rapid to gradual. The objective of commercial activities should be to minimize impact. In cases where activities take place on a temporary basis, plans should detail how the site will be returned to its natural condition as soon as possible. Determining the limits of

acceptable change that an area can tolerate without unacceptable impacts offers a framework for managing recreation use to protect wilderness qualities, such as the opportunity to enjoy a broad spectrum of recreation experiences and outstanding opportunities for solitude.

Principle 8: Monitor Area Conditions and Experience Opportunities

Any recreation management plan, or program, needs a monitoring system to evaluate progress toward stated objectives, and to guide the long-term revision, adjustment and refinement of the plan. Devising monitoring plans remains one of the major challenges for advancing recreation management consistent with current adaptive management models. A good plan describes the desired future conditions to be achieved, and sets them out in the form of management objectives. Through monitoring (i.e., the systematic gathering, comparing, and evaluation of data) government and stakeholders will be able to determine whether planned objectives are being realized.

Biological, physical and social conditions can be influenced by recreation use. The Ministry of Sustainable Resource Management will work in co-ordination with other agencies and the Muskwa-Kechika Advisory Board in developing appropriate measures for monitoring and evaluating the impacts of commercial recreation activities within the MK. The monitoring program will rely on a scientific approach to measure and evaluate suitable indicators of change in conditions.

Principle 9: Partnerships in Planning and Management

The M-KMA is a public trust; opportunities for First Nations and public input for planning and management of the area are important to the success of these activities. Recreation planning and management should ensure that all interests are involved in decision-making by using a fair, open and consultative process which takes into account provincially, regionally and locally-established priorities and public interests. Mutual learning and understanding is a key benefit in public participation for both managers and interested stakeholders alike.

Principle 10: Relationship with First Nations

Recreation planning and management activities within the M-KMA will respect First Nations' traditional harvesting, cultural activities and other aboriginal or treaty rights and interests. Opportunities for meaningful consultation with First Nations in recreation planning and management activities are required.

Principle 11: Coordination with Adjacent Areas and Uses

The M-KMA and adjacent lands should be managed in relation to one another. Human activities on lands adjacent to the M-KMA can have substantial impacts inside the boundary and vice-versa. Recreation planning and management decisions inside and outside of particular resource management zones and inside and outside the M-KMA should be co-ordinated and integrated to the greatest extent possible. The Land and Resource Management Plans for Fort Nelson, Mackenzie and Fort St. John give direction on what activities are appropriate for the lands outside the M-KMA.

Principle 12: Cooperation and Coordination between Agencies

Because the recreation resource can be influenced by many human activities (including both industrial and amenity uses) and because local strategic recreation planning and management within the M-KMA is a shared responsibility between various government agencies, the co-ordination of recreation planning and management activities is necessary. Therefore, recreation planning and management should be conducted in an integrated, co-operative, collaborative and open manner with provincial government agencies and the Muskwa-Kechika Advisory Board acting as partners in the process.

RECREATION ANALYSIS PROCEDURES

As with the original MKRMP, recreation analysis was used to develop the report's management direction, activity guidelines and zone-specific guidelines. This involved the collection, analysis and interpretation of data concerning:

- ✧ recreation supply (i.e., biophysical features, access, facilities, structures);
- ✧ recreation use (i.e., where and what recreationists are doing);
- ✧ recreation demand (i.e., what recreation experiences/activities people want to participate in);
- ✧ the value of recreation use; and
- ✧ the opinions of recreationists, governments, First Nations and interested stakeholders.

The following is a description found within the M-KRMP outlining components of the recreation analysis, the main sources of data and general analysis procedures.

Recreation Supply

To develop specific and achievable recreation management objectives, information was needed about the supply of recreation resources that people use to meet their demand for recreation experiences in the area. This information included:

- ✧ biological (e.g., flora/fauna) and physical (e.g., lakes/streams and landforms) features where recreation activities can take place;
- ✧ facilities and structures (e.g., campsites, and cabins); and
- ✧ access routes (e.g., navigable rivers, roads, trails and seismic lines).

Recreation supply information was used to assess the potential of the recreation resource to meet the demand for recreation experiences or opportunities in the present and future. Information on the elements of recreation supply was obtained from users, organizations, First Nations, inventory data from government agencies and LRMPs. The data were analyzed and compared to recreation use and demand data and stakeholder and First Nations' opinions to meet the plan's objectives.

Recreation Use

Recreation use is a measure of actual participation in recreation activities. It includes: participation in both passive and active behaviours (e.g., wildlife viewing, as well as hiking, boating, etc.), and apparent or front country and dispersed uses (e.g., use of designated campsites/trails, as well as hunting, snowmobiling, etc.). The term "use" does not necessarily imply value or demand. For example, where there are no facilities (e.g., any lodges), recreation demand may be high even though recreation use is low.

Recreation use information was used to identify current pressures (impacts) on recreation resources and to determine whether the demand for recreation experiences is being met; as well as determine the resources' ability to sustain more use. Recreation use data were obtained from users, organizations, First Nations, government agencies and LRMPs. Recreation use data were analyzed and compared to recreation supply and demand data and stakeholder and First Nations' opinions to meet the plan's objectives.

Recreation Demand

Recreation demand is the amount of recreation experiences/activities people want to have and participate in for a given cost. Demand can be separated into present-future and public-commercial use components. A number of variables such as consumer income, site quality and the price of substitute sites/experiences affect demand.

As was mentioned earlier, recreation demand does not equate to recreation use. There are a number of reasons why people might demand a recreation experience/activity but defer participating in the activity until a later time ("latent demand"). These include:

- ✧ personal deferred (e.g., because of young children or bad health);
- ✧ facility deferred (e.g., no ski hills, lodges, or trails); and
- ✧ linkage deferred (e.g., no \$ or no transportation).

Information on recreation demand was used in the recreation analysis to determine the recreation opportunities the public wants and what the appropriate activities/levels might be in the M-KMA. Demand data was obtained from users, organizations, First Nations and interested stakeholders.

Recreation Value

Recreation value is a very complex economic concept. In the most general sense, recreation value is the net benefit to society of a recreation activity, experience or opportunity. Recreation value consists of two generally recognized components: use values and non-use or intrinsic values. Recreation value can be estimated in terms of dollar and non-dollar value. Estimates of the value of backcountry recreation for carrying out recreation analysis for the original RMP was defined as the dollar value spent by all recreationists (public and commercial) for direct purchases such as food, fuel, supplies and commercial operators' fees. Estimates were obtained from users, organizations, First Nations, government agencies and other pertinent documents and reports. Estimates were defined as the estimated market value of guide-outfitting territories. This information was obtained from guide-outfitters operating in the Mackenzie Addition parcel.

LRMP Objectives and Stakeholder and First Nations' Opinions

Recreation management objectives and strategies developed in the LRMPs, and subsequently incorporated into the M-KMA legislation, provide integral strategic direction of this recreation management plan. Stakeholders, users and First Nations also provided valuable information that was used in the development of this plan.

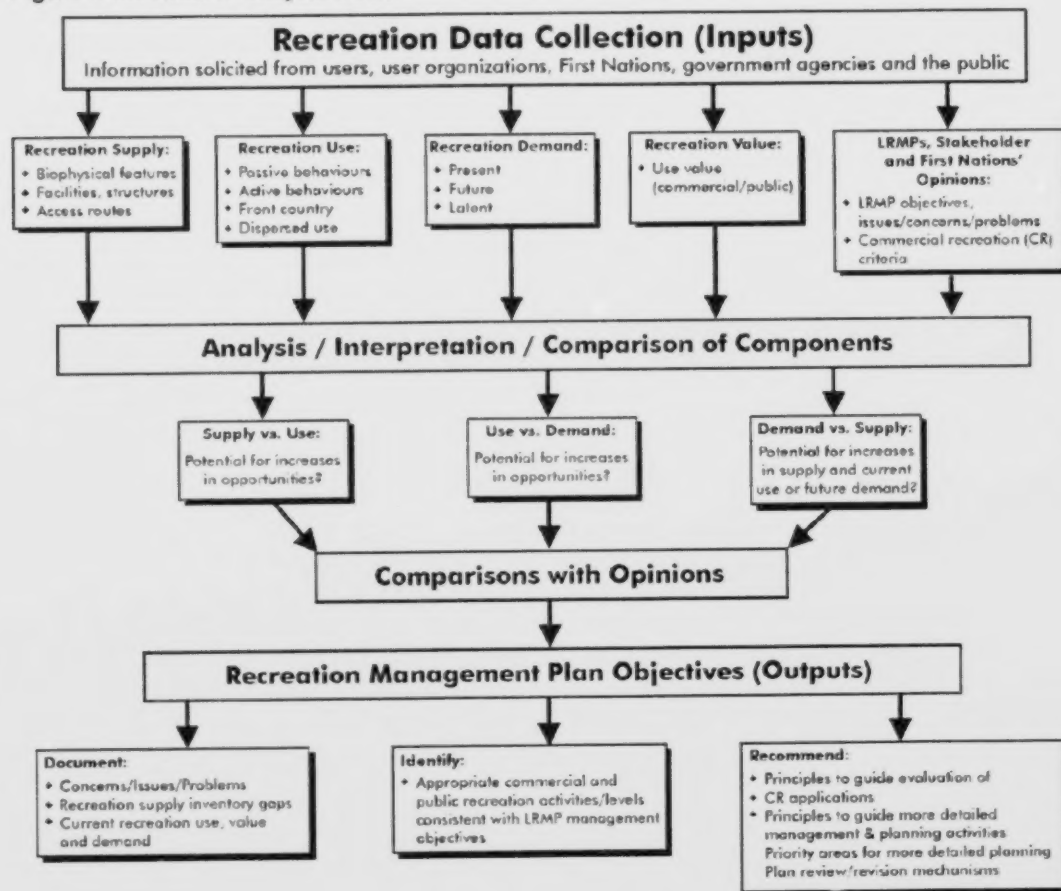
Recreation Profile – Values, Current Situation and Assumptions

Recreation analysis was used to develop the management direction, activity guidelines and specific actions for the management of the recreation resource in the RMZs that make up the M-KMA. It involved the collection, analysis and interpretation of data concerning:

- ✧ recreation supply (i.e., biophysical features, access, facilities, structures);
- ✧ recreation use (i.e., where and what recreationists are doing);
- ✧ recreation demand (i.e., what recreation experiences/activities people want to participate in);
- ✧ the value of recreation use; and
- ✧ the opinions of recreationists, governments, First Nations and interested stakeholders.

The following is a description of the components of the recreation analysis, the main sources of data and general analysis procedures. Figure 2 is a diagram of the recreation analysis model.

Figure 2. Recreation Analysis Model



Resource Management Zones

These are the names of the RMZs as defined in the Fort Nelson, Fort St. John and Mackenzie LRMPs as well as the M-KMA Management Plan.

First Nations' Values, Traditional Use and Occupancy

The M-KMA has traditionally been occupied and used by Treaty 8 First Nations, the Kaska Dena First Nations, the Fort Liard and Tsay Keh Dene First Nations. As such, a number of traditional First Nations' uses and sites have been identified for the RMZs. While some of the more significant use sites and levels of use identified so far are listed in Table 3, it should be noted that there are information gaps concerning First Nations' traditional use and occupancy. Filling these gaps is important for effective recreation planning and management in the M-KMA. Each First Nation community has expressed a different extent of interests for participating in resource planning within the M-KMA. The Ministry of Sustainable

Resource Management, and other Provincial Ministries, will ensure that lines of communication will be kept open to provide ongoing opportunity for First Nation input to recreation planning.

Features, Facilities and Trails

Wilderness recreation opportunities in the M-KMA depend, in part, on biological and physical features, recreation-related facilities and access routes. In addition to these, user-created dispersed campsites and trails occur throughout the area. In the southern portion of the original M-KMA area, there are numerous old seismic lines that also serve as access routes.

Recreation Value

As explained in the preceding section, recreation value is a complex concept. Due to the lack of detailed economic data, only rough estimates of the current "dollar value" of each RMZ are listed in Table 3. Four broad categories are used to describe the estimates for each RMZ. These include the following:

- ✧ Low: 0-\$200,000;
- ✧ Moderate: \$200,000 – \$500,000;
- ✧ High: \$500,000 - \$1 million;
- ✧ Very High: \$1 million+

Current Access Methods

A number of access methods are used to travel to and within the M-KMA. As shown in Table 3, the dominant methods are aircraft (wheeled and float), horse, boat, on-foot and in the winter, snowmobile.

Cultural Heritage Values

In addition to the traditional First Nations' cultural values, some RMZs in the M-KMA feature non-aboriginal cultural and heritage values. Some of the more significant examples are included in Table 3 and include trading posts and routes, geological survey routes and historic trails.

Current Public Recreation Activities

Hunting and fishing activities dominate the list of current recreation activities described for each RMZ in Table 3. However, numerous other outdoor recreation pursuits are in evidence in the M-KMA. Estimates of current levels of use in the original M-KMA range from: 10-50 users per year in the smaller provincial parks and more remote RMZs; to thousands in the major provincial parks adjacent to the Alaska Highway. Estimates of current levels of use within the Mackenzie Addition range from 3-5 users per year up to 50-70 in "busier" parts of the planning unit.

Current Commercial Recreation Activities

Commercial recreation suppliers have traditionally offered services for a fee to both resident and non-resident recreationists. Activities offered by the commercial sector include all those engaged in by the public sector. The number of commercial recreation suppliers within the original M-KMA, range from less than half a dozen to over two dozen in Northern Rockies Mountain Provincial Park. Within the Mackenzie Addition, commercial recreation suppliers range from one to six, depending on the Resource Management Zone.

Anticipated Future Public and Commercial Recreation Demand

Estimating both the future demand and levels of future use for recreation opportunities is extremely difficult. The estimates of activities and use levels listed in Table 3 were made based on each RMZ's recreation supply information and data obtained from M-KMA users, organizations, First Nations and government agencies. However, it should be pointed out that the activities and levels-of-use listed in the table for public and commercial recreation are not prescriptive. That is, they do not necessarily represent what activities and use levels will be appropriate in the future. They are solely estimates of what recreationists might want to do in the future.

Environmental Considerations

When determining the appropriateness of recreation activities, the effects of these activities and accompanying use levels on elements of the natural environment must be considered. (For more detail see the section titled "Ecological Considerations for Recreation Management.") Some of the most significant environmental aspects that could potentially be affected by certain recreation activities are listed for each RMZ in Table 3. However, there may not be other aspects that should be considered. For example, there are likely mineral licks in all the RMZs in the M-KMA. Only the most significant ones are listed in the table.

Other Potential Factors

In some RMZs, there may be certain factors that could potentially limit either the suitability of a recreation activity or a particular level of use. The most significant factors are listed in Table 3. Examples include campsite availability and forage for horses. As is the case with the environmental considerations mentioned above, these factors would need to be examined on a site-specific basis.

Recreation Management Plan for the M-KMA

Table 3. Values, Current Situation and Assumptions

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Rainbow (2)	TU Samuel Black's pack route	Rainbow Lake, Cassiar River: mountainous scenery, e.g., Shantooth Mountains	Low	Floatplane, Horse, boat, helicopter	Hunt, fish, camp, trail ride, wildlife view/Low use	Hunt, fish, camp, raft, wildlife view/ <6 suppliers, 36-40/yr.	Existing/Low increase in use	Existing plus Hel-hike/Hel-ski/Low increase in use	Critical goat and caribou habitat	Horse forage
Sandpile (2)	- Mosquito Ck. Indian reserve, McDame Trail, Kaska settlement sites and burial grounds - McDame Trail, linking Davis Trail to McDame Post on Dease River	Blue Sheep Lk., Solitary Lk., Burnt Rose Lk., Sandpile Lks., Major Hart River: mountainous scenery, major guide camps	Moderate	Floatplane, boat, horse, aircraft	Hunt, fish, camp, trail ride, wildlife view/Low use	Hunt, fish, raft, wildlife view/ <6 suppliers, 36-40/yr.	Existing/ Low increase in use	Existing/Low increase in use	Mineral licks, critical sheep and caribou habitat	
Aeroplane Lake (2)	Dave Trail, heavy Kaska TU around Aeroplane Lake	Aeroplane Lk., Twin Island Lk., Birches Lk., Kizla and Calf Ck. Complexes, unroaded low rolling forested landscape, major guide camp	Moderate	Floatplane, boat, horse, raft/canoe	Hunt, fish, raft/canoe, wildlife view, camp, hike, trail ride/Low use	Hunt, fish, raft/canoe, wildlife view, camp, hike/ <6 suppliers, Low use	Existing/Low increase in use	Existing/Low increase in use	Critical habitat around lakes for grizzly bear and moose	
Terminal (2)	Heavy Kaska TU around Long Mtn. Lake and along trail connecting Muncho Lake to Graveyard Lake, Kaska settlement sites, T8TU.	Windfall Lk., Lapie Lk., Long Mtn. Lk., Forster Lk., Skeezer Lk., various alpine lakes, borders Muncho Lake Park, horse trail from Muncho Lake Park, Long Mtn. - major guide camp	High	Floatplane, horse, aircraft, snowmobile	Hunt, fish, wildlife view, hike, camp/ 50-60/yr.	Hunt, fish, trail ride, wildlife view, camp/ 7 suppliers/ 230/yr.	Existing/Low increase in use	Existing/Moderate increase in use	Critical goat grizzly bear and caribou habitat	Horse forage

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Moose (2)	• Kaska TU.	• Moose Lk., Boreal Lk., western edge of Rocky Mtn. Trench, mountainous terrain, major guide camp.	• Moderate	• Floatplane; boat; horse; canoe	• Hunt, fish, trail ride, canoe, wildlife view, camp/50/yr.	• Hunt, fish, trail ride, raft, photo, wildlife view, camp/7 suppliers/130/yr.	• Existing/ Low increase in use	• Existing/Low increase in use	• Critical sheep habitat	
Fishing (2)	• Heavy Kaska TU, particularly around lakes. Kaska settlement and assembly sites and burial grounds (e.g., Graveyard Lake). Historic trail to Chee House Post.	• Fishing Lk., Grant Lk., Gemini Lks., Graveyard Lks., Nihil Lk., Hare Lk., Rabbit River, rolling hills in unroaded condition, Mt. Red visible from Alaska Highway, major guide camp.	• Moderate	• Floatplane; boat; horse; raft.	• Hunt, fish, camp, raft, wildlife view/50/yr.	• Hunt, fish, camp, raft, wildlife view/ <6 suppliers/100/yr.	• Existing plus ice-fishing/Low increases in use	• Existing plus snow-mobiling, cross-country ski/Moderate increase in use	• Islands of high quality goat and grizzly bear habitat	• Horse forage
Rabbit (2)	• Heavy Kaska TU around Nelson Lake and Homeline Creek. Hunt, fish, camp, wildlife view/ 50-60/yr.	• Nelson Lk., Homeline Lk., Moose Lk., Pup Lk., Lupus Lk., Rabbit and Gundersen Rivers, eastern edge of Rocky Mtn. Trench, Mountainous terrain, horse trails from Muncho Lake Park, Terminus Mtn., major guide camp.	• High	• Floatplane; aircraft; boat; raft; horse		• Hunt, fish, camp, trail ride, rafting, hike, wildlife view/ 7 suppliers/ 230/yr.	• Existing plus hike, snow-mobiling/Low increase in use	• Existing plus snow-mobiling, cross-country ski, heli-skiing/ Moderate increases in use	• Critical habitat for caribou and grizzly bear	• Horse forage

Recreation Management Plan for the M-KMA

Table 3. Values, Current Situation and Assumptions

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Rainbow (2)	• Tū • Samah Black's Lake	• Rainbow Lake • Samah River • Mountain scenery, e.g. Grandfather Mountain	• Low	• Fourplane • Hubs, boat • helicopter	• Hunt, fish • camp, bird • watch • view lake	• Hunt, fish • camp, bird • watch • view lake • 2000/yr	• Existing low • increase in • use	• Existing plus • increase in • use • 2000/yr	• Critical point • and corridor • habitat	• Horse forage
Sandpile (2)	• Muskrat • Indian Island • McDune Trail • Kaska settlement • (see and local • products) • McDune Trail • (see and local • products)	• Blue Island • (see and local • products) • Blue Island • (see and local • products) • Blue Island • (see and local • products)	• Moderate	• Fourplane • boat, horse • aircraft	• Hunt, fish • camp, bird • watch • view lake	• Hunt, fish • camp, bird • watch • view lake • 2000/yr	• Existing low • increase in • use	• Existing low • increase in • use	• Mining risks • (see and local • products)	
Aeroplane Lake (2)	• Beaver Trail • Kaska • (see and local • products)	• Sandpile • (see and local • products) • Sandpile • (see and local • products)	• Moderate	• Fourplane • boat, horse • aircraft	• Hunt, fish • camp, bird • watch • view lake • 2000/yr	• Hunt, fish • camp, bird • watch • view lake • 2000/yr	• Existing low • increase in • use	• Existing low • increase in • use	• Critical habitat • (see and local • products)	
Terminal (2)	• Kaska • (see and local • products)	• Windfall • (see and local • products) • Windfall • (see and local • products)	• High	• Fourplane • horse, aircraft • (see and local • products)	• Hunt, fish • camp, bird • watch • view lake • 2000/yr	• Hunt, fish • camp, bird • watch • view lake • 2000/yr	• Existing low • increase in • use	• Existing Moderate • increase in • use	• Critical point • and corridor • habitat	• Horse forage

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Moose (2)	• Kaska TU	• Moose Lx, Boreal Lx, western edge of Rocky Mtn. French Mountains, terrain, most guide camps	• Moderate	• Floatplane, boat, horse, canoe	• Hunt, fish, trail ride, canoe, wildlife view, sandshoe	• Hunt, fish, trail ride, raft, photo, wildlife view, canoe, 7, 100 y	• Existing, Low increase in use	• Existing, Low increase in use	• Critical sheep habitat	
Fishing (2)	• Heavy Kaska TU, particularly around town, Kaska settlement and assembly sites and burial grounds, e.g., Graveyard Lake, Rabbit Flat to Chew House Flat.	• Fishing Lx, Giant Lx, Birch Lx, Graveyard Lx, North Lx, Moose Lx, Rabbit River, riding trail, in unroaded section, Mt. Road, visible from Kaska Highway, Trail, guide camp	• Moderate	• Floatplane, boat, horse, raft	• Hunt, fish, canoe, raft, wildlife view, 50 y	• Hunt, fish, canoe, raft, wildlife view, 100 y, 200 y	• Existing plus ice-fishing, Low increase in use	• Existing plus ice-fishing, moderate opportunity, ice-fishing, Moderate increase in use	• Habitat of high quality, with some old forest	• Horse forage
Rabbit (2)	• Heavy Kaska TU, around Rabbit Lake and Humble Creek, Hunt, fish, canoe, wildlife view, 50 y	• Rabbit Lx, Moose Lx, Moose Lx, Rabbit Lx, Rabbit and Gravelly Rivers, western edge of Rocky Mtn. French Mountains, terrain, horse trails from Moose Lake Park, Terminal Mtn. most guide camp	• High	• Floatplane, aircraft, boat, raft, horse		• Hunt, fish, canoe, trail ride, rafting, horse, wildlife view, 7, 100 y, 200 y	• Existing plus ice, snow, moderate increase in use	• Existing plus ice, snow, moderate opportunity, ice, snow, Moderate increase in use	• Critical habitat for wolf, with some old forest	• Horse forage

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Eight Mile/Sulphur (2)	• Kaska and T8 TU Hunt, fish, hike, wildlife view, raft, snow-mobiling, photo, camp/ 400/yr. (majority of use in vicinity of Nonda Ck. Road)	• Numerous trails, unroaded wilderness in mountainous terrain: Old Woman Lks., Four Mile Lks., Nonda Ck. Tower viewpoint, major guide camps.	• Moderate	• Vehicles, ATV, horse, riverboat, snow-mobiles, aircraft, floatplane, raft		• Hunt, fish, hike, wildlife view, raft, ecotours, camp/ <6 suppliers/ 125/yr.	• Existing/ Moderate increase in use	• Existing plus Heli-hiking, trapline observation, trail ride/ Moderate increase in use	• Mineral licks, critical habitat for grizzly bear, sheep and elk movement corridors.	
Churchill (2)	• Heavy Kaska TU around Moose Lake and Toad River watershed, Kaska settlement sites, Fort Nelson TU and Indian Reserve at Moose Lake. Potential archaeology and anthropology area.	• Moose, Emerald Ram and Yedhe Lks., Glaciers; old mining roads; Toad, West Toad Racing rivers; Mt. Roosevelt; major guide camp.	• High	• Vehicles, ATV, riverboat, boat, horse, raft, aircraft, snowmobile, floatplane.	• Hunt, fish, camp, trail ride, sight-see, hike/ 300+/yr.	• Hunt, fish, camp, trail ride, trapline observation, raft/ <6 suppliers/ 75/yr.	• Existing/ Moderate increase in use	• Existing plus trekking/ Moderate increase in use	• Mineral licks, Moose habitat at Moose Lk. and alpine areas, critical goat and sheep habitat.	• Sustainability of fish stocks at Ram Lakes.
Stone Mountain (Existing Park)	• Kaska TU and settlement sites, T8 TU.	• Ram and Snake Cks., Dunedin River, Stone Mtn. open grasslands, mountainous terrain.	• High	• Aircraft, horse, raft, snowmobile.	• Hunt, fish, trail ride, camp, hike, sight-see, wildlife view/ 225/yr.	• Hunt, fish, ecotours, trapline observation, camp, raft, trail ride, wildlife view/ <6 suppliers/ 100+/yr.	• Existing plus Mtn. Trekking/ Moderate increase in use	• Existing plus Heli-hiking/ Low increase in use	• Mineral licks, fragmented habitat for grizzly bear, elk and sheep.	
Muskwa West (4)	• Prophet River camp/sites, burial grounds and food gathering sites, Halfway River TU.	• Foothills, rolling landscape, Klucchesi, Gathito, Beckman Cks., Chischa and Muskwa Rivers.	• Moderate	• Horse, aircraft, snowmobile, riverboat, raft.	• Hunt, fish, camp, trail ride/ 200/yr.	• Hunt, fish, ecotours, trail ride, camp/ <10 suppliers/ 200/yr.	• Existing/ Moderate increase in use	• Existing plus photo, hike/ Moderate increase in use	• Mineral licks, extensive climax grasslands for elk.	• Horse forage in northern portion.

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Prophet (2)	Prophet River and Halfway River TU; numerous archaeological sites. Bedaux Trail.	Prophet, Beta Rivers; Richards Ck., Kingzuit Mtn.; Old High trail, Numerous meadow complexes, Major guide camps.	Very High	Horse; aircraft; raft, riverboat; snowmobile/ floatplane	Hunt, fish, trail ride, Photo, raft, wildlife view, camp, hike/ 900/yr	Hunt, fish, trail ride, photo, wildlife view, raft, camp, hike/ 10 suppliers/ 500/yr	Existing/ Moderate increase in use	Existing plus cross-country ski, trapline observation/ Moderate increase in use	Mineral licks; diversity of wildlife populations. (sheep, caribou and goat).	Horse forage
Alaska Highway Corridor (5)	Kaska and Fort Nelson TU; highway was developed along traditional First Nations' trails. Alcan Highway and associated artifacts.	Alaska Highway, Land, Trout, Racing, and Tetsta Rivers; McDonald Creek; Toad River Corridor; views; numerous trailheads; private land; lodges/hotels, major guide camps.	Very High	Vehicle, aircraft, ATV, snowmobile, floatplane, horse, raft, hike, mtn. bikes	Sight seeing, wildlife view, camp, hike, trail ride, hunt, fish/ Very high use levels	Sight seeing, wildlife view, camp, hike, trail ride, hunt, fish/ Very high use levels	Existing plus ice-climbing/ Moderate increase in use	Existing/ Moderate increase in use	Mineral licks, water quality, vehicle-wildlife interactions (caribou and sheep); bull trout habitat.	Visual considerations; availability of private land for commercial recreation
Graham North #1 and #2 (4)	Halfway and West Moberly TU.	Graham River; Justice Ck., AMA route; Emerslund trail; major guide camp.	Moderate	ATV; aircraft; horse, snowmobile	Hunt, fish, camp, wildlife view/250/yr.	Hunt, fish, camp/ <6 supplier/ 30/yr	Existing/ Moderate increase in use, except for significant increases in snowmobiling	Existing/ Moderate increase in use	Critical habitat for grizzly bear and bull trout.	
Besa-Halfway-Chowade (4)	Heavy Halfway River and Prophet TU; campsites and burial grounds. Bedaux and RCMP Trails; traditional human migration route.	AMA Routes; Laurier Pass; Ten Mile; Robb, Marion, Koller, Twin, Cranswick, Colledge Lakes, Loranger and Nevils Cks.; Brown's Farm; Louis' Farm; major guide camps.	Very High	ATV; aircraft; floatplane; horse, vehicle, snowmobile	Hunt, fish, camp, wildlife view, photo/ 3000+/yr.	Hunt, fish, camp, wildlife view, photo/ <10 suppliers/ 500/yr	Existing/ Moderate increase in use, except for significant increase in snowmobiling	Existing/ Moderate increase in use	Mineral licks, critical habitat for moose, caribou, bison, elk, sheep and grizzly bear.	Site specific horse forage

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Eight Mile Sulphur (2)	• Kaska and Ts'is'yu First Nations historic site including archaeological site in vicinity of Tunnel Creek Road	• Numerous trails, including wilderness trails, including Kaska and Ts'is'yu First Nations historic site, Tunnel Creek Road, and Tunnel Creek Road	• Moderate	• Vehicles, ATVs, snowmobiles, snowshoes, ski, snowboard, ski lift	• Moderate	• Moderate	• Existing Moderate increase in use	• Existing plus increase in use	• Moderate, low impact, low risk, low level of disturbance	
Churchill (2)	• Heavy Kaska/Ts'is'yu and Moose Lake and Ts'is'yu First Nations historic site including Kaska settlement site, Fort Nelson/Ts'is'yu and Moose Lake Provincial park, and archaeological site	• Moderate, Kaska/Ts'is'yu and Moose Lake and Ts'is'yu First Nations historic site, Moose Lake Provincial park, and archaeological site	• High	• Vehicles, ATVs, snowmobiles, ski, snowboard, ski lift	• Moderate	• Moderate	• Existing Moderate increase in use	• Existing plus increase in use	• Moderate, low impact, low risk, low level of disturbance	• Sustainability of Churchill and Fort Nelson
Stone Mountain (Existing Park)	• Kaska/Ts'is'yu and settlement site, TSTP	• Kaska/Ts'is'yu and settlement site, TSTP	• High	• Vehicles, ATVs, snowmobiles, ski, snowboard, ski lift	• Moderate	• Moderate	• Existing Moderate increase in use	• Existing plus increase in use	• Moderate, low impact, low risk, low level of disturbance	
Moose West (3)	• Kaska/Ts'is'yu and settlement site, TSTP	• Kaska/Ts'is'yu and settlement site, TSTP	• Moderate	• Vehicles, ATVs, snowmobiles, ski, snowboard, ski lift	• Moderate	• Moderate	• Existing Moderate increase in use	• Existing plus increase in use	• Moderate, low impact, low risk, low level of disturbance	

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values¹	Important Features/Facilities/Trails	Estimated Current Recreation Value²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Peggy's Cove (2)	• Peguise River and Halfway River TLA numerous archaeological sites. Beaulieu Park.	• Prospect Beach River Mouth Ok. Kingsport Mt. Dawson Trail Numerous historic landmarks. Many guidebooks.	• Very High	• Horse, aircraft raft, overland and marine boating.	• Hunt, fish, bird watch, photo, off road vehicle, camping, canoe, skiing.	• Hunt, fish, hawk view, photography, wildlife viewing, raft, canoe, horse, cross-country riding.	• Existing: Moderate increase in use.	• Existing plus increased activity on historic settlement. Moderate increase in use.	• Mineral-rich quartzite of wildlife populations; cultural heritage and scenic.	• Historic bridge.
Alaska Highway Corridor (3)	• Alaska and Fort Yukon TLA highways were developed along National First Nations trails. Aurora Highway and associated artifacts.	• Alaska Highway, Lamb Trail, Koonung and Tenia River, McMurdo Lake, Todd River, Chukchee valleys etc., numerous riversheds, parks and landscapes, major guide books.	• Only High	• Vehicle, aircraft, ATV, expedition, backpacking, canoe, raft, horse, mountain bike.	• Sightseeing, wildlife view, camp, hike, trail run, boat, fish, bird-watching, hunting.	• Sightseeing, wildlife view, camp, hike, trail run, boat, canoe, fish, bird-watching, hunting.	• Existing plus overlooking Moderate increase in use.	• Existing: Moderate increase in use.	• Mining risks: water quality will be affected infectious diseases and chemicals, but trail route stable.	• Visual considerations: availability of private land for commercial recreation.
Diamond North at road #2 (4)	• Highway and West Moosey TLA	• Diamond River, Jupiter Cr. AMA route, Emerald Trail major guide books.	• Moderate	• ATVs, airport ferry, overlander.	• Hunt, fish, camp, wildlife view (photo).	• Hunt, fish, camp, canoe, boat, overlander.	• Existing: Moderate increase in use, would be significant for significant increase in recreational use.	• Existing: Moderate increase in use.	• Critical habitat for grizzly bear and wolf must.	
Bear Halfway-Chowade (4)	• Henry Halfway River and Pound TLA samples and local groups. Beehive and RCMP Trail, traditional human migration route.	• AMA Route, Lakeside Pass, Ten Mile Road, Malen Killer, Fair Creek, Collette Lakes, Lodgepole and Newby Dry Brook, Fairly Guide books.	• Very High	• ATVs, aircraft backpack, horse, canoe, overlander.	• Hunt, fish, camp, wildlife view (photo), guidebook.	• Hunt, fish, camp, wildlife view (photo), ATV equipment, skiing.	• Existing: Moderate increase in use, would be significant for significant increase in recreational use.	• Existing: Moderate increase in use.	• Mineral-rich quartzite, but no major activity, but rich in scenic and geology value.	• Significant historic bridge.

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ¹	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ¹	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Toad River Corridor (3)	• Kaska settlement sites and burial grounds, traditional trail along river, Fort Nelson TU.	• Toad River, open fire maintained grasslands.	• Low	• Riverboat, horse	• Hunt, fish, camp, wildlife view, trailride/ 75/yr.	• Hunt, fish, camp, trail ride, trapline obs, wildlife view/ <6 suppliers/ 50/yr.	• Existing plus rafting/ canoeing/ Moderate increase in use	• Existing plus rafting, hike, canoeing/ High increase in use	• Mineral licks and hot springs, movement corridor for grizzly bear and elk.	• Availability of campsites
Muskeg River Corridor (3)	• Fort Nelson and Prophet River TU, settlement sites and burial grounds.	• Muskeg River, view of Samuelson Mtn. from river.	• Very High	• Riverboat, ATV on east side of river, horse, raft, aircraft	• Hunt, fish, camp, trail ride wildlife view, raft/ 1200/yr.	• Hunt, fish, camp, trail ride wildlife view/ 10+ suppliers/ 500/yr.	• Existing/ Moderate increase in use	• Existing/ Moderate increase in use	• Fish habitat at mouths of creeks.	• Availability of campsites
Kechika River Corridor (3)	• Heavy Kaska TU, Dave Trail, numerous settlement sites, Chee House Post, Dave Trail, Heritage river, McDame Trail.	• Kechika River, Scoop Lake, Heart of Rocky Mtn. Trench, major guide camp.	• Moderate	• Riverboat, floatplane, aircraft, raft, horse, canoe	• Hunt, fish, wildlife view, camp/ 350/yr.	• Hunt, fish, camp, wildlife view, trailride/ 14 suppliers/ 250/yr.	• Existing plus canoe/ High increase in use	• Existing plus canoe/ High increase in use	• Mineral licks, critical elk habitat, moose winter range, bird migration/ staging areas.	• Site specific horse forage
Turnagain/ Dall River Corridor (3)	• Heavy Kaska TU with settlement sites and burial grounds, McDame Trail.	• Turnagain, Dall Rivers, Turnagain River Falls, outcrops, major guide camps.	• Moderate	• Aircraft, riverboat, raft, horse, floatplane	• Hunt, fish, wildlife view, camp/ 150/yr.	• Hunt, fish, camp, raft, wildlife view, trail ride, photo/ 3 suppliers/ 50/yr.	• Existing/ High increase in use	• Existing/ Moderate increase in use	• Fish habitat at mouths of streams, critical habitat for caribou, sheep, goat.	• Availability of campsites
Dall River Old Growth Park (1)	• Heavy Kaska TU with settlement sites and burial grounds.	• White spruce old growth, Dall River portion of McDame Trail.	• Low	• Horse	• Hunt, fish/ 10/yr.	• Hunt, fish/ 1 supplier/ 50/yr.	• Existing/ Low increase in use	• Existing/ Low increase in use		

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Denetiah Park (2)	Heavy Kaska TU, particularly around Dall and Denetiah Lakes, Dave Trail Historic fur trading route, Dave Trail.	- Denetiah and Dall Lks. - Dave Trail, Kechika (Heritage River) and Dall Rivers; viewscape of Gataga and Terminus Mountains; major guide camps.	High	Riverboat, horse; floatplane, boat; raft/canoe	Hunt, fish, wildlife view, hike camp, photo, canoe, raft/ 100/yr.	Hunt, fish, wildlife view, camp, photo, trail ride, rafting, canoeing/ 12 suppliers/ 350/yr.	Existing/ Moderate increase in use	Existing plus hike, snowmobiling/ Moderate increase in use	Lake char, northern pike and rainbow; critical habitat for grizzly and goat, licks.	
Liard River Hot Springs Park (Existing Park)	- Kaska and Fort Nelson TU - Old Alaska Highway route, fur trade, geological survey exploration route.	Hot springs and related habitat; campground and intensively used frontcountry park facilities- (interpretative services; boardwalk, picnic shelters; playground, etc.) beginning of AMA route.	Very High	Vehicle and ATV	Camping, bathing, snowshoeing, wildlife view, fishing, photo, guided interpretation tours, nature appreciation/ 25,000/yr.	Camping, bathing, snowshoeing, wildlife view, photo, guided interpretation tours, nature appreciation/ 15,000/yr.	Existing/ Moderate increase in use, especially for winter activities	Existing/ Moderate increase in use, especially for winter activities	Hot springs habitat; various red-listed species	Water quality in hot springs, camps/te availability
Muncho Lake Park (Existing Park)	- Kaska and Fort Nelson TU - ALCAN Highway, archaeological sites.	Muncho Lake, alluvial fans, interpretive signs, frontcountry campgrounds, Trout, Toad Rivers, Honda Creek, hoodoos, Folding Mtn, Peterson Canyon, AMA routes, Gundahoo Pass, Prochniak, mineral licks, Strawberry and Sheep Flats Trails, major guide camp, Resort lodges.	Very High	Vehicle; aircraft; floatplane, boat, ATV; raft, snowmobile; hike	Hunt, fish, camp, hike, wildlife view, rafting x-country ski, photo, canoeing, boating, snowmobiling, trail ride/ Very high use	Hunt, fish, camp, hike, wildlife view, boat tours, rafting/ Very high use, especially associated with highway corridor and Muncho Lake area	Existing/ High increase in use	Existing/ High increase in use	Mineral licks, critical sheep and goat habitat.	Campsite availability in frontcountry

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Northern Rocky Mountains Park (includes former Wopkash Recreation Area) (4)	Kaska Dena, Fort Nelson, Prophet River and Halfway River TU. Burial grounds and significant spiritual sites. Bedaux and High Trails, Fur trade, Mary Henry expedition.	Tuchodi, Tetsa, Chasca Wopkash and portions of the Muskwa Rivers and Gahito Ck., Tuchodi, Tetsa, Kluchesi, Wopkash and various alpine lks.; Summits (Mt. Mary Henry, Sleeping Chief and Mt. Sylvia) and glaciated landscapes; Hoodoos, Forks and Wopkash Gorge, Fusillier Glacier, major guide camps.	Very High	Riverboat, floatplane, aircraft, raft/canoe, horse, snowmobile	Hunt, fish, camp, wildlife view, photo, ice-fish, rafting, trail ride, snowmobile, hike, sightsee/ 1500/yr.	Hunt, fish, camp, wildlife view, photo, ice-fish, trail ride, snowmobile, hike, rafting, sightsee, trapline observation/ 30 suppliers/ 1,500/yr.	Existing plus rock-ice climbing, summer glacier skiing, mtn. biking/ High increase in use	Existing plus rock-ice climbing, summer glacier skiing/ High increase in use	Mineral licks; Bull trout spawning habitats, cumulative effects of range burning; diverse wildlife values	Horse forage; current high use and campsite availability within Tuchodi River and Muskwa River corridors during hunting season
Graham-Laurier Provincial Park (2)	Halfway River and West Moberly TU, RCMP Trail.	Christina Falls, Graham River watershed, Lady Laurier Lk.; Summits, AMA route, Needham Ck.	Low	ATV, horse, aircraft, snowmobile, floatplane, mtn. bike	Hunt, fish, photo, camp, trail ride, wildlife view, hike, feature view/ 100/yr.	Hunt, fish, photo, camp, trail ride, wildlife view, feature appreciation/ 4 suppliers/ 50/yr.	Existing plus ice-fish, canoeing/ Low increase in use	Existing plus ice-fish, canoeing, heli-hike/ski/ Low increase in use	Mineral licks; critical grizzly bear and caribou habitat, bull trout, fragmented/ Retic sheep and goat populations.	
Sikanni Chief River Ecological Reserve (Existing Park)	Prophet River and Fort Nelson TU, spiritual and gathering sites, Heritage Trails, archaeological artifacts, geological surveys (McCusker).	- Old Growth White Spruce Forest - Alpine Plant Communities & Wildlife in Pristine Environment	n/a	- Fly in - Horse	- Guide Outfitting - Hunting	Guide-Outfitter	n/a	n/a	Protected Old Growth White Spruce Forest	Designated as a Provincial Park in 1999.

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Liard River Corridor Park (3)	Fort Lard, Kaska and Fort Nelson TU, important trading route, high probability of burial grounds; Two Fort Nelson First Nations archaeological sites. Cultural artifacts (e.g., trading posts, etc.); important early access routes to northern interior of BC; old drilling rig near mouth of Toad River.	Liard River and Grand Canyon, trail of '98 route; Fossil Ck. Caves; Old Growth Forests; Nordquist and Aline Lakes; Elk Mtn.; Deer River Hot Springs; chum salmon; moose; Arctic cisco; wood bison; major guide camp.	Moderate	Floatplane; riverboat; raft/canoe; horse; vehicle; ATV; snowmobile; aircraft	Hunt, fish, wildlife view, raft Feature Appreciation, camp, spelunking/ 300/yr.	Hunt, fish, wildlife view, photo, camp, raft/ 10 suppliers/ 100/yr.	Existing/ Moderate increase in use	Existing/ Moderate increase in use	Wood bison herd; intact predator/prey ecosystem; critical grizzly bear habitat.	Fossil sites; chert formations; horse forage
Stone Mountain Provincial Park (Existing Park)	Kaska and Fort Nelson TU. Alcan highway, High Trail.	Stone Mtn campgrounds; Summit Lake and Pass, McDonald Creek, Stone Range, Hoodoos, Mt. St. George and Mt. St. Paul, glacial features, North Tetso River, Flower Springs Lake & trail; Baba Canyon, erosion pillars, Summit microwave tower trail; commercial lodge.	Very High	Floatplane; vehicle, horse, hike	Hunt, fish, trail ride, hike, camp, wildlife view boating, climbing, photo feature appreciation/ Very high use	Hunt, fish, wildlife view trail ride, hiking/ <6 suppliers/ Very High use	Existing/ Moderate increase in use	Existing/ Low increase in use	Fish stocks in lakes/streams Wildlife collisions; critical habitat for caribou and sheep	Campsite availability, horse forage

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ¹	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ¹	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Redfern-Kelly Provincial Park (II)	• Prophet River and Halfway River TU, spiritual and gathering sites, High Trail, Bedaux Trail, archaeological artifacts, geological surveys (McCusker)	• Redfern, Trimble, and Fairy Lks., Besa River and Kelly Ck watersheds, alpine basins & peaks, glaciers, waterfall and tams, hoodoos, AMA route, Plains Bison, Trimble Lake trail	• High	• ATV, horse, floatplane, snowmobile, dog sled, raft/canoe/ Boat/ kayak, boat, aircraft	• Hunt, fish, trail ride, camp, hike, photo, Wildlife view, snowmobiling, ATViing, raft/canoe, Feature appreciation, hike/ 500+lyr.	• Hunt, fish, trail ride, camp, photo, Wildlife view, hike, Snowmobiling, raft/canoe, hike/ <5 suppliers/ 100lyr.	• Existing plus mountaineering, mtn biking/ Moderate increase in use, especially along AMA route	• Existing plus Cross-country ski/ High increase in use	• Mineral licks, Bear-human conflicts, critical grizzly bear and sheep habitat	• Horse forage, campsite availability around Redfern Lk.
Toad River Hot Springs Park (I)	• Kaska and Fort Nelson TU with spiritual and gathering sites and burial grounds	• Hot springs and related wildlife habitats	• Low	• Riverboat, horses, hike	• Hunt, fish, wildlife view, camp/ 30lyr.	• Hunt, fish, camp, wildlife view/ 5 suppliers/ 20lyr.	• Existing/ Moderate increase in use	• Existing/ Moderate increase in use	• Hot springs habitat and wildlife, mineral licks	• Campsite availability
Homeline Creek Park (I)	• Heavy Kaska TU around Homeline Creek	• Roaman and wildlife habitats and features, canyon	• Low	• Hike, horse	• Hunt, wildlife view/ 10lyr.	• Hunt, wildlife view/ 1 supplier/ 10lyr.	• Existing/ High increase in use	• Existing/ High increase in use	• Goats	• Horse forage, campsite availability
Prophet River Hot Springs Park (I)	• Prophet River and Halfway River TU, settlement sites, burial grounds, campsites and archaeological sites, Archaeological artifacts	• Hot spring habitat and important wildlife features, Heritage River, tufa mound	• Low	• Horse, snowmobile, raft, riverboat	• Hunt, fish, camp, trail ride, wildlife view/ 50lyr.	• Hunt, fish, camp, trail ride, wildlife view/ 50lyr.	• Existing/ Low increase in use	• Existing/ Moderate increase in use	• Hot springs habitat, wildlife, mineral licks	• Campsite availability
Tetsa River Park (Existing Park)	• Kaska, Fort Nelson and Prophet River TU	• Campground, confluence of Tetsa River and Mill Creek, trail to Muncho Lake	• Low	• Vehicle	• Swim, fish, camp, raft, wildlife, hunt view, hike, picnic/ 5,000lyr.		• Existing/ Low increase in use	• Low		

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Ospika Cones - Ecological Reserve (1)	• Within Tsay Keh Dene's traditional territory	• Tufa terraces and pools formed by cold mineral springs • Wildlife mineral lick	• n/a	• No ground-based access permitted	• 2 guide-outfitters (g-o's): Blueberry Holdings/Angie Watson, Danen Cary	• n/a	• n/a	• n/a	• One of few cold water tufa formations in BC. • Wildlife mineral lick.	
Kwadacha Wilderness Provincial Park & Addition (2)	• Hunting cabin at the forks of the Wareford & Kwadacha rivers; access by snowmobile in the winter • Fishing at Quentin, Hayworth & Chesterfield Lakes • Trail along south side of Kwadacha River	• Big game • Chesterfield Lk. used for fishing and hunting base • Fern Lk. used as base for Elk hunting	• Moderate	• Floatplane to Chesterfield Lk., Elk Lk.	• Hunting • Fishing	• 1 guide-outfitter, hosting < 6 clients/yr	• Due to remote nature and park status, use levels will likely be low	• Due to remote nature and park status, use levels will likely be low	• High wildlife habitat values: moose, grizzly bear, mtn. goat • Fern Lake, special fishing regulations	• Kaska are concerned regarding motorized boating on lakes in the park • Aircraft access to high use lakes should be reviewed and limited

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Dune Za Keyih (Frog Gataga) (2)	- Section of the Dave Trail - Kaska interest in developing commercial recreation activities on the Dave Trail - Name of park means "Land of the Original People" in Kaska Dena S. Gataga Lks. used for fishing & fishing cabins present - Confluence of the Kechika features a gravesite and trapline cabin - Trails: n. side of Gataga, from Wessener Lk. to S. Gataga - Concerns regarding high levels of motorized boat use on the Gataga, Frog, and Kechika Rivers	3 large, pristine river valleys: Gataga, Kechika & Frog - Dave Trail S. Gataga River - Lakes: Ram, Mayfield, S. Gataga, Island, Beven, Pike - Gataga R.: jet boating and rafting S. Gataga Lakes host fly-in fishing camps - Trapper's cabin on Mayfield Lk.	High	- Floatplane into Island Lk., Butterfly Lk., Johah Lk., Mayfield & Rainbow Lakes - Jet boat down Muncho onto the Gataga R. - Horseback - Foot	- Canoeing, river boating, fishing, hunting, hiking, rafting, pack-trips - Resident hunting decreased over the past decade - Jet boating activities are potentially a problem on the Gataga during hunting season	5 guide-outfitters - Commercial rafting on the Gataga [access from Mayfield Lakes] (@ 3 trips/yr) - Packer activity - Wilderness trips with horses (12) (@15 guests/yr (Sawchuk) - Fishing at Mayfield, Ram, Beven Lakes, South Gataga	- Anecdotal information suggests a decreasing number of resident hunting in this area - Air-based fishing is increasing including fixed-wing and helicopter access modes	- Given the high monetary value of this area and the above average number of commercial operators, use levels will likely increase moderately over time - Increasing rafting use on the Gataga	- Contiguous management with Denetah & Duff R. Old Growth parks - Very high moose and mtn. sheep values - The Frog River appears to be getting less volume - Sensitive goat habitat in the Forsberg Range - Ram & Beven Lakes are susceptible to fishing activities - Pike Lakes feature sensitive wet terrain, built infrastructure is not appropriate here	- ELU corridor designation - Motorized boats cannot navigate above Drift pile Rapids on the Gataga - LRMP restriction re motor boat access above the Logjam (Driftpile) rapids - Concern regarding heli-skiing & heli-hiking in this RMZ - Levels-of-use thresholds should be identified for the Gataga, Kechika & Frog

Recreation Management Plan for the M-KMA

Resource Management Zone/ (Recreation Category)	First Nations & Cultural Heritage Values ¹	Important Features/ Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Finlay Russell Provincial Park and Protected Area (4)	• Caribou Hide trail • Close to Kwadacha Village • High fisheries values • High value sheep habitat down the Pelly R. & important goat range • Concerns regarding potential commercial heli-skiing/hiking activities • Heavy use on the Finlay R. (fishing, hunting, trapping) up to the canyon & cabins along the river • Trail up the Finlay & NE side of Cut-off Creek • Cut-off Cr. - fishing • Hunting around Prairie Mtn. for deer, elk, caribou, bear • Rainbow Lk. - hunting (caribou, grizzly), fishing (trout) • John Finlay's expedition route on the Finlay River	• Finlay R., For R., U Pelly Cr. Valley • Caribou Hide Trail	• Low	• Floatplane • Horseback • Backpack • Jet boat • Motorboat	• Hunting, fishing, rafting, kayaking, canoeing • Finlay R. hosts an occasional floater • Heavy motor boat use on the Finlay and parts of the Kwadacha • Winter snow-mobiling up to Rainbow Lk.	• 2 guide-outfitters & 1 vacant territory	• Given this zone's close proximity to Kwadacha Village and access roads, use trends will be dependent on population dynamics in the village as well as industrial use to the south.	• This depends on CR development activities (close to Kwadacha); whether any additional CR interest occurs due to the area's new park status; BC Parks' management guidelines pertaining to CR development.	• Important fish & wildlife habitat: caribou, moose, sheep, goat • Potential road access is of concern • Upper part of this contains high wildlife sensitivity for moose, goat and grizzly bear	• 2 ELU corridor designations with intent to access the U Pelly & Oso R. RMZ's

Recreation Management Plan for the M-KMA

SMZ General	First Nations & Cultural Heritage Values ¹	Important Features/Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Nuhseha (Fox) (6)	- This zone is in the Kaska's backyard - A sensitive use area is the route between Kwadacha, Fox Lk., Fox R., and Fox Pass 3 main high use rivers: Finlay, Upper Fox & Kwadacha - Trail up Caracayo to Spectre Peak and Weissener Lake - Cabin & burial ground near Beaver Pass - Youth camp at Weissener Lk. - Fish conservation values on Weissener & Fox lakes - Hunting & fishing camp at confluence of Wareford & Kwadacha Rivers - Trapping cabins located at Fox Pass, 9 mile, 18 mile, 27 mile (beaver cabin), 36 mile (Fox Lake)	- Weissener Lk., Kwadacha R., Wareford/ Kwadacha Forks, Sifton Pass, Baby Lk., Pass Lakes, Dave Trail, Finlay R., Fox Lk. & Pass - Cabins located on Fox Lk., Joe Poole, Rainbow Lk., Fox Pass (Brandon Ck.) - Mineral licks in the Fox Pass - Trail up Oso River to Oso Lake	High	- Horseback - Floatplane - Hunters from Mackenzie & Prince George boat up the Finlay to hunt and fish	- Hunting - Fishing	4 guide-outfitters (with about 14 clients=7/yr)	Mainly dependent upon population and use trends in Kwadacha & Tsay Keh Villages as well as industrial development trends	- Due to difficult terrain and less wildlife than the eastern slopes, hunting activities likely low growth - In some areas, hunting and fishing activities are increasing, suggesting moderate growth in other parts of this unit	Sensitive wildlife habitat.	LRMP directive to maintain a remote recreation experience at Weissener Lk., U. Kwadacha R. and upper end of Weissener

Recreation Management Plan for the M-KMA

SMZ General	First Nations & Cultural Heritage Values ¹	Important Features/Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Yah-Hya "Johiah" (Obo River) (6)	- Fish conservation values on Spinel, Ridgeway & Obo lakes - Family traplines - Trail up Obo River to Obo Lake - Campgrounds south of Moose Lake	- The area of Spinel & Ridgeway Lakes - Obo R., Finlay R. - Cabins at Spinel and Obo Lks - Spinel Ck., Obo River Valley feature a number of mineral ticks	Moderate	- Floatplane - Horseback	- Fly-in fishing at Obo Lk. in July & August - Obo river has the occasional floater	2 guide-outfitters	May increase due to increased commercial floatplane activity out of Muncho Lake	- Anecdotal information suggests growth in commercially guided hunting & fishing - CR interest in Obo lake may promote moderate growth in fishing activity	Boundary adjacent to the Finlay-Russell PA	

SMZ Wildland	First Nations & Cultural Heritage Values ¹	Important Features/Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Bluff Creek (2)	- Kaska traditional use area - Lots of caribou in this zone	Bluff Creek	Low	- Foot - Horseback	2 guide-outfitters	Hiking, wildlife viewing, hunting		Western boundary follows the Due Za Keyih boundary		
Upper Gataga (2)	- Kaska Dena are interested in commercial river rafting - Stone Lk. to Gataga is good caribou habitat	U. Gataga River with go's trail & cabin infrastructure - Northern Rockies Lodge from Muncho have a Cabin at S. Gataga River for Angling Guiding	Moderate	- Horseback - Floatplane	Hiking, fishing, hunting, wildlife viewing, hunting, rafting, canoeing, kayaking, packing, jetboating	2 guide-outfitters (x 6/yr) - River rafting - Jet-boat shuttles - Fly-in fishing (@20/yr - S. Gataga Lakes) - Wilderness trips (Sawchuk)	Given this area's versatility and current diversity of activities, moderate growth is forecast to occur here	?	Considered keystone RMZ due to ecosystem functions & habitat connectivity	Gataga is not navigable in its upper reaches

Recreation Management Plan for the M-KMA

SMZ Wildland	First Nations & Cultural Heritage Values ¹	Important Features/Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
McCusker (2)	- Blueberry Band has go-territory here - Belongs within the traditional territory of the Tsay Keh Band	U. Ospika & Denkman watershed	Moderate	- Horseback - Foot (Note: floatplane into Skanni Chief just outside this RMZ)	- Hiking, hunting, wildlife viewing - Minimal public recreation use here	3 guide-outfitters	Due to area's remote nature and difficult access, forecast as low	Due to higher wildlife richness on the eastern-slopes, and difficult access, likely low	- Borders Dune Za Keyh PA - High mtn. goat & grizzly values - Large amount of pine beetle deadstand	- High oil & gas exploration interests - Road access severely restrained due to terrain
Upper Ukai (Upper Akie) (2)	- Akie Trail & associated heritage features - Old trail up the Akie along Kwadacha - Hunting (moose, caribou, elk)	Finlay R. Akie R., Peske Cr.	Moderate	- Horseback - Foot - Motor boat	Fishing, hunting, hiking, wildlife viewing	4 g-d's - Fly-in packer	Due to area's remote nature and difficult access, forecast as low	Due to higher wildlife richness on the eastern-slopes, and difficult access, likely low	N. boundary adjacent to Kwadacha PA - Sensitive mtn. goat habitat - A number of mineral licks along the Kwadacha at NW boundary	Concern regarding helicopter activities
Keh Wahkeludi "Burned Cabin" (Braid) (2)	- Davie Trail used by Kaska Dena, other First Peoples and also the NW Mounted Police to commute to the Yukon - Kaska interest in the Davie Trail - High use along the upper reaches of the Kechika	- Driftpile Lk. - Brad (Sheep)/ Kechika River confluence - Citreon (Big) Ck/Kechika confluence - Sifton Pass	Low	- Snowmobile - Foot - Horseback ? Jet boat	Hunting	2 guide-outfitters - Wilderness trips (Sawchuk) - Potential to develop CR activities on the Davie Trail	?	Due to development interests and diversifying CR products, moderate growth likely	Sheep & moose habitat incl. sheep licks on the lower Brad, and between Driftpile and the Brad	Trail use management plan recommended in the LRMP for the Davie Trail

Recreation Management Plan for the M-KMA

SMZ Wildland	First Nations & Cultural Heritage Values ¹	Important Features/Facilities/Trails	Estimated Current Recreation Value ²	Current Access Modes	Estimated Current Public Activities/ Use Levels	Estimated Current Commercial Activities/ Use Levels	Forecasted Public Rec. Activities/ Use Levels ³	Forecasted Commercial Rec. Activities/ Use Levels	Environmental Considerations	Other Factors
Thehahje (Frog) (2)	• Sensitive traditional use area • Cabin nr. Driftple Ck. & on Obo Lk. • Upper Obo Lk.: berry picking, trapping (ground hog), hunting (grizzly) • Paddy Ck.: hunting (mtn. sheep) • N. Rainbow, Johan Lk. & Laidlaw Lakes: hunting (caribou) • Trails: along Obo River, the Frog and from Fox Lk. through Spinel and up from there	• Johan Lk., Obo Lk., Frog R., lng. unnamed lake west of Obo Lk.	• High	• Jetboat on the Frog as well as via the Kechika R. • Foot • Horseback	• Hunting, fishing, wildlife viewing, packing, jetboating • Few resident hunters enjoy the Frog R. area • Fly-in fishing on the Frog R. (~20 /yr)	• 3 guide-outfitters • Kechika Wilderness River Adventures • Wilderness Ventures Ltd., • Lard Air/ Northern Rockies Adventures	• Interest in further developing fly-in fishing infrastructure; therefore, moderate use increases forecasted	• Interest in further developing fly-in fishing infrastructure; therefore, moderate use increases forecasted for non-residents	• High value habitat for Stone's sheep, mtn. goat, caribou, and grizzly in the NW portion • High value wildlife habitat along Rainbow and Butterfly Lakes	• LRMP directs to use 1998 levels of development to maintain Semi-Primitive & Primitive Recreation Opportunities here
Upper Tse Baje (Upper Pelly) (1)	• Upper Pelly: hunting (moose) • Above Bower Ck.: hunting (mtn. goat, sheep) • Burial ground up Bower Ck. • General traditional use • Trapline down the Bower Ck.	• Russell Range, • Bower Creek • Pelly Lake	• Moderate			• 2 guide-outfitters			• Area is unique as 2/3's surrounded by protected areas	• Has Pelly Lake been designated as VSA area?

1 Traditional use includes but is not limited to trapping, hunting, fishing, camping, berry picking, medicine gathering and other similar activities that arise out of the use and occupancy of the land by First Nations. While some of the more significant use sites and levels of use identified so far are listed in Table 3, it should be noted that there are information gaps concerning First Nation traditional use and occupancy.

- 2 Low = 0-\$200,000 Moderate = \$200,000-\$500,000 High = \$500,000-\$1 million Very High = \$1 million +
- 3 Low - up to 33% increase in use Moderate - 34% - 66% increase in use High - 67%+ increase in use

ECOLOGICAL CONSIDERATIONS FOR RECREATION MANAGEMENT

Opportunities for quality wilderness recreation experiences in the M-KMA depend in part, on the maintenance of the wilderness setting or natural environment. In addition, portions of the M-KMA are important as scientific benchmarks representing relatively undisturbed ecosystems and processes. Recreation use should be sensitive to the need to maintain these settings and benchmark areas. Subsequent planning processes should identify those areas, especially sensitive to human disturbance.

While industrial activities can cause disruption of ecological processes, recreation use and management activities related to recreation use also have the potential to affect components of the ecosystem. The following are some major ecosystem components that can be affected by wilderness recreation use and that will be considered in developing recreation management directions and activity guidelines in later sections of the plan.

Soil Conditions

The majority of negative effects on soil conditions from recreation use begin with the destruction of organic matter in the soil surface and the compaction of soils and snow, primarily from trampling by people, horses, all-terrain vehicles, etc. Changes to soil characteristics such as aeration, temperature, moisture, nutrition and soil organisms affect the soil's capability to support existing vegetation and the establishment of new growth. In addition, compaction increases the potential for erosion and the diversion of natural watercourses.

Vegetation Conditions

Vegetation impacts start with damages to soil conditions and are exacerbated by trampling effects. Most common are decreases in vegetation cover leading to changes in species composition. More tolerant (i.e., resistant or resilient) species begin to outnumber those species less resistant to damage (e.g., tree seedlings, low-lying shrubs and lichens). The introduction of non-native species can also change species composition. Growth rates can be affected which cause changes in the age and structure of vegetation species. Loss of vegetation cover exacerbates such effects as loss of organic matter and increased erosion.

Wildlife and Fish

Potential adverse effects on fish and wildlife species from recreation use include direct mortality (i.e., hunting, trapping, and fishing) and harassment in addition to habitat alterations from the vegetation changes described above. Human presence can have an effect on wildlife behaviour, and many species will tend to avoid areas with a human presence. Alterations to population structures and species composition can also be caused by decreases in food sources, destruction of home and breeding sites (e.g., dead snags for cavity-nesting birds, spawning grounds, etc.) and the alienation of habitat. The introduction of non-native fish and animal species can affect native stocks.

Water

Recreation use can directly and indirectly affect water quality in wilderness settings. Direct effects include physical disturbance of bottom habitat, the introduction of pathogens as a result of improper disposal of human waste or pollution such as oil and gasoline residue from boat motors and vehicles,

discarded fuel drums and fuel spills. Indirect sources include increased sedimentation from erosion associated with soil and vegetation changes. Together, these impacts can cause changes to fish and riparian habitats, aquatic plant growth and reduced amounts of dissolved oxygen leading to disturbances to aquatic fauna (e.g., through changes of nutrient levels).

Factors Affecting Changes to Ecosystem Components

The major factors that influence both the type and degree of change to ecosystem components from recreation use are: the amount of use; the distribution of use; the type of user groups; party size; user behaviour; the mode of travel and the environmental conditions of use sites. Factors related to management activities that can affect ecosystem components include prescribed fire for habitat enhancement and other fish and wildlife management practices (e.g., fish stocking). Each of these factors and the degree of impact resulting from them vary considerably. In general, at low levels of use, increases in use cause the most rapid change to ecological components. Impacts occur at less rapid rates at higher level of use, primarily because conditions have deteriorated as much as they can.

Overall, the levels of change are more severe for users: staying overnight; staying longer periods and carrying more equipment. Similarly, larger parties tend to expand sites and cause more damage to vegetation and soil conditions than smaller parties. Motorized use tends to affect certain ecological conditions more than non-motorized use, primarily on levels of wildlife disruption, vegetation damage and soil compaction. However, horses and packstock also eat and trample vegetation, introduce non-native plant species and disturb soils. Hikers can also damage vegetation and soils at campsites and trails, pollute water sources and disrupt wildlife. For all types of users, the knowledge and practice of minimum impact behaviour lessens negative ecological effects.

As was mentioned earlier, site conditions also affect the extent of ecological effects from recreation use. However, the durability of a site is a very complex issue with few definitive answers. One characteristic may make a site durable while another makes it vulnerable. In addition, both a site's resistance (i.e., not be affected by use) and a site's resilience (i.e., ability to respond favourably after being affected) must be considered. In general: non-forested sites are more resistant to vegetation damage; sites with thick organic horizons are usually most durable; coarse textured soils are less erodible than fine textured soils and erosion potential increases with increases of slope.

Susceptibility to negative effects varies among wildlife species and different environments. Little research has been done on impacts from recreation use, but in general, vulnerability is greatest: at centre key locations (e.g., breeding, spawning, feeding, birthing and watering areas); during periods of harsh weather and during unproductive years. Riparian areas are critical for many species.

As is the case with wildlife impacts, little research has been done on the susceptibility of different aquatic and riparian environments to damage from recreation activities. Indications are that: water bodies differ in their ability to tolerate damage; frequently flushed out bodies are less vulnerable and lakes at high elevations are less productive, cooler with fewer nutrients and, therefore, are more at risk than lakes and streams at lower elevations.

Minimizing Changes to Ecosystem Components

The knowledge and practice of minimum impact behaviour lessens negative changes to ecological components. The success of the "pack-it-in, pack-it-out" litter control program shows what can be done through education. There are, however, limits to what these practices can accomplish. Therefore, education is not a panacea; instead, it is a foundation on which to build a program of other actions to minimize the effects of recreation use.

Many potentially worthwhile minimum-impact techniques exist. Some of the more generally useful and non-controversial techniques include the following:

- ✧ use proper equipment (e.g., waterproof tent floors make drainage ditches unnecessary);
- ✧ keep party size small;
- ✧ select resistant and appropriate campsites (e.g., avoid camping close to water sources);
- ✧ limit firewood consumption and be careful with fire;
- ✧ minimize site pollution (e.g., pack out all garbage);
- ✧ properly dispose of human waste;
- ✧ stay only a short time at individual campsites;
- ✧ remove weeds/seeds from vehicles, boats and equipment (e.g., horse trailers);
- ✧ avoid introducing non-native plant species by using clean livestock feed;
- ✧ confine recreational livestock away from water sources, trails and camping areas and don't tether them to trees;
- ✧ avoid contact with bears and harassing wildlife;
- ✧ store all food in appropriate containers and out of reach of wildlife;
- ✧ stay on existing trails and avoid wet areas; and
- ✧ meat poles should be placed high enough to hang harvested game from the reach of bears.

In conclusion, appropriate behaviour varies between and within different areas in the M-KMA. It also varies for different seasons of the year. However, if all recreation users adopt a minimum-impact ethic, changes to ecological components can be minimized.

Summary

In those areas where recreation occurs, changes to ecological conditions are inevitable. Both the type and severity of effects vary for different use and user characteristic, ecosystem components and the environmental resistance or resilience of sites. Impacts do not occur in isolation and single activities can cause multiple impacts. Due to the interrelationships of the main ecological components, each impact can have a cumulative effect which may worsen or balance off other changes.

Because there is potential for significant change (e.g., alterations to the distribution, population structure and behaviour of many wildlife species), ecological considerations are necessary when developing management objectives and activity guidelines for recreation use. The adoption of a minimum impact ethic can reduce or eliminate many of the negative effects from recreation use.

MANAGEMENT DIRECTION FOR RESOURCE MANAGEMENT ZONES

Introduction

A diversity of physical and biological features and recreation opportunities can be found in the different LRMP Resource Management Zones of the M-KMA. The strategic management objectives and strategies developed by the LRMP tables for the RMZs have been used to delineate six categories of RMZs within the M-KMA. The LRMPs also describe different resource, social and managerial conditions that will be maintained in those categories (see Figure 3).

The RMZs grouped into Category I are all small parks which were designated by the LRMP tables to protect significant natural or cultural features and/or outstanding heritage or recreation sites. The RMZs grouped in Category II are, for the most part, large remote areas with very similar management objectives as determined by the LRMP tables. All of the major river corridor RMZs are grouped into Category III. The RMZs grouped into Category IV also had similar recreation management objectives as determined by the LRMP tables and are located in the southern portion of the M-KMA. Category V is comprised of the Alaska Highway Corridor, the RMZ containing the highest level of development in the M-KMA. Category VI includes areas located adjacent to the First Nations' communities of Ingenika and Kwadacha, which consequently host higher levels of human use than in Category II.

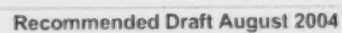
Conditions within these categories range from relatively primitive to ones typified by more visible impacts from recreation use. As such, these descriptions provide the management direction or desired future conditions for recreation in each of the LRMPs' Resource Management Zones, including new provincial parks, in the M-KMA.

(Note: As approved park management plans are "local strategic plans" as defined by the *M-KMA Act*, parks with park management plans in existence at the time of M-KMA establishment, i.e. Stone Mountain, Muncho Lake, Liard River Hot Springs and Tetsa River do not require further evaluation within this plan. While the General Management Directions of the LRMPs apply to these parks, the specific objectives for management of these parks are driven by their approved park management plans. Designation of Ecological Reserves are for research and education, therefore recreation planning is not appropriate for the Sikanni Chief and Ospika Cones Ecological Reserves.)

General Recreation Management Direction

The following general recreation management directions apply to all of the Resource Management Zones, including new provincial parks, in the M-KMA unless stated otherwise.

- ✧ Both public and commercial recreation uses are allowed in all RMZ categories, consistent with the category's management direction and other plans such as Forest Service District Recreation Plans and park management planning processes. Commercial recreation activities must be tenured or permitted by the appropriate government agencies.
- ✧ Other than designated Access Management Area (AMA) routes, non-status campsites, trails and airstrips are not mapped or advertised. Established routes, designated campsites, and/or trails within a provincial park may be mapped and/or advertised as determined by future park management plans. In general, the intent is that routes, trails, campsites and airstrips will be unmapped and unadvertised, except where required to protect ecological values, wilderness recreation experiences or for safety reasons. (This direction does not apply to the Alaska Highway Corridor RMZ and the Toad River Triangle Access Management Area exemption.)



Recreation Management Plan for the M-KMA

- ◇ Motorized water-based opportunities that existed at the time the LRMP was approved are allowed. (This is intended to allow motorized use of those rivers and lakes that have sufficient water flow and depth. Subsequent planning processes must identify those areas where motorized water-based recreation activities will be restricted due to unacceptable impacts on fish and riparian habitats and recreation experiences.)
- ◇ Generally low levels of aircraft access to and within the area are allowed. The construction of new airstrips for recreation purposes will generally be limited. Construction of new airstrips within provincial parks will not be allowed. Other motorized access or use for recreation purposes is allowed subject to Access Management Area regulations and park management planning decisions (see Appendix 3). For other restrictions on motorized use see Table 3.
- ◇ Helicopter and fixed-wing transported recreation activities have the potential to cause significant site-specific impacts as well as negative effects related to flight path disturbance. These commercial activities should be aware of their potential effects on wilderness and habitat. These operations should develop strategies to identify then avoid or mitigate significant impacts to wildlife, sensitive wildlife habitat, wilderness characteristics and the recreation experience of users.
- ◇ More detailed planning initiatives (e.g., Forest Service district recreation planning, park management planning processes, etc.) must address impacts from recreation use on sensitive environmental values (e.g., critical winter wildlife habitat, calving areas, etc.).
- ◇ At this time, the plan does not address the appropriate size of recreation parties. However, in the future, acceptable maximum party sizes may need to be determined in more detailed planning initiatives to limit their impact on recreation experiences or the environment.
- ◇ Trails should be considered a public resource, not available for exclusive tenure or use.
- ◇ In those RMZs with high current demand for public use sites (e.g., in some river corridors, Northern Rocky Mountains Provincial Park, Alaska Highway Corridor, etc.) and where use is expected to increase in the future, allocation of sites for commercial use shall consider the needs of the public, First Nations' traditional use and occupancy, and park management plans within provincial parks.
- ◇ The process of evaluating/adjudicating commercial recreation applications must consider the effect of the proposed activities on sensitive ecosystem components (e.g., critical wildlife habitat, mineral licks, etc.) and First Nations' traditional use and occupancy. Expansion of CR operations or increases in public use levels may be allowed consistent with the RMZ category's management direction (see Table 4). Acceptable levels of use will be determined in subsequent more detailed planning (e.g., Forest Service district recreation planning, park management planning processes, etc.). In RMZ categories III, IV and V, this determination will take into account existing levels of motorized boat use.
- ◇ Constructing new trails and permanent facilities by the general public is prohibited except when authorized by the appropriate government agency. The same activities by commercial operators and registered non-profit societies must be approved through LWBC's CR tenuring process and its protocol agreement with the Ministry of Forests or through BC Parks' Park Use Permit process.
- ◇ To minimize negative bear/human interactions, government agencies, outdoor recreation organizations, commercial operators, etc. shall, whenever possible, provide information to the public on dealing with bear/human encounters; bear behaviour; the safest human behaviour while in bear country; and report incidents to the managing authority. All outdoor recreation users should practise and promote backcountry safety behaviour.
- ◇ Within provincial parks, the use of off-road motorized recreational vehicles and boats may be restricted either by type of vehicle, time of year, areas or routes as determined through park management planning processes, emerging conservation concerns or safety-oriented issues.

- ❖ Determination of the appropriateness of recreation activities that develop in the future will be evaluated on an as needed basis and subject to park management planning processes within provincial parks.
- ❖ The Fort Nelson LRMP directed that exotics, such as llamas and ostriches, are not to be used as pack animals in provincial parks. The reason for this direction is an attempt to avoid any diseases being introduced, as this would compromise the ecological integrity of the area. Over time, horses and mules have proven to be compatible with the environment. With time and research, it may be proven that exotics are also compatible. If this turns out to be the case, then this direction can be revisited and amended. (See Recommendation #5 in the section titled "Recommendations.")
- ❖ Except for roads designated and maintained as AMA routes, roads are not to be built for recreational purposes within the provincial parks.
- ❖ Decisions made in RMZs adjacent to provincial parks will encourage management activities that support the intended objectives and acceptable uses of the parks, including conservation and where appropriate, recreation.
- ❖ Minimum impact camping practices, e.g., "Tread Lightly" programs, are strongly encouraged for visitors to the M-KMA.

Category I RMZs: Small Provincial Parks

Dall River Old Growth Provincial Park, Horneline Creek Provincial Park, Toad River Hot Springs Provincial Park and Prophet River Hot Springs Provincial Park.

(Note: These parks are all smaller than 650ha and were selected to ensure the protection of significant natural or cultural features and/or outstanding heritage or recreational sites.)

Mackenzie Addition: This zone category only applies to Ospika Cones Ecological Reserve (ER). Given the high conservation priorities in ERs, these areas are intended to remain remote in nature experiencing minimal human contact.

Desired Future Conditions

Resource Setting – Management activities are directed towards maintaining an essentially undisturbed and unmodified environment; protection of the special feature is paramount. Site modifications are minimal. Tenured developments and camps are not compatible within this category. There are relatively few campsites and developed trails. Access is limited to non-motorized methods except for motorized boats.

For Ospika Cones, management activities are directed towards maintaining an essentially undisturbed and unmodified environment; protection of the special feature is paramount. Site modifications are minimal. Tenured developments and camps are not compatible within this category.

Social Setting – There is little chance of human contact in the area. There are high opportunities for solitude and isolation with a very low likelihood of interaction with other users. Party sizes are small. Visitors have a very high opportunity for experiencing independence and self-reliance associated with wilderness recreation skills, and for experiencing challenge and risk.

For Ospika Cones, entry is restricted. No person shall enter upon an ecological reserve for a purpose inconsistent with the *Ecological Reserve Act*, and without limiting the generality of the foregoing, no person shall prospect for minerals, cut timber, allow domesticated animals to graze, camp, light fires, trap or molest animals, build roads or trails, use motorized vehicles within an ecological reserve, or remove plants, animals or material from an ecological reserve.

Managerial Setting – Management activities in the area will emphasize protection and ongoing monitoring of the resource. Management activities in the area will minimize impacts on the wilderness recreation experience. Rules, regulations and minimum impact practices will usually be communicated outside the area. Signs are generally not allowed except where necessary to protect environmental conditions or for safety. Spot checks by management personnel will occur to ensure compliance with the area's management direction.

For Ospika Cones, management activities in the area will emphasize protection and ongoing monitoring of the resource. The *Ecological Reserve Act* outlines the following ER management guidelines:

- ❖ entry to reserves is restricted;
- ❖ no person shall enter an ER for a purpose inconsistent with the *Ecological Reserve Act*; and
- ❖ without limiting the generality of the foregoing, no person shall prospect for minerals, cut timber, allow domesticated animals to graze, camp, light fires, trap or molest animals, build roads or trails, use motorized vehicles within an ecological reserve, or remove plants, animals or material from an ecological reserve.

Category II RMZs: Large, Remote Areas

8 Mile/Sulphur, Churchill, Moodie, Prophet, Rabbit, Rainbow, Stone Mountain, Sandpile, Fishing, Aeroplane Lake, Terminal, Graham-Laurier Provincial Park and Denetiah Provincial Park.

(Note: Some of the RMZs in this category, except for the provincial parks, have significant potential for industrial activities. The long-term objective is to return these areas to their natural state as these activities are completed. During the periods these development activities are taking place, there is a greater potential for recreationists to encounter other resource users. These activities may modify the desired recreational experience to some degree.)

Mackenzie Addition: Kwadacha Park Addition (to be managed with the existing Kwadacha Wilderness Provincial Park), Dune Za Keyih Provincial Park, Bluff Creek, Upper Gataga, Tehkahje [Frog], Keh Whakeludi "Burned Cabin" [Braid], Upper Tse Baje "Russell Range" [Upper Pelly], Upper U kai [Upper Akie], and McCusker.

(Note: Wildland SMZs have no permanent primary access roads, only temporary access corridors are permitted within these zones).

Desired Future Conditions

Resource Setting – Management activities are directed toward maintaining an essentially unmodified environment. (However, there are areas where prescribed fire has been used in the past and may be used in the future to enhance wildlife habitat and forage for recreational livestock. In the past, site modifications at some guide outfitter camps have been significant.) There are relatively few facilities and developed trails. When present, facilities are generally low-key, rustic, widely dispersed and compatible with the resource setting. There is very little motorized vehicle access in this category of RMZs, and no existing access roads within the Mackenzie Addition. Air transport, and in some RMZs water transport, plays a significant role in providing access into these remote areas, however use levels are low.

Social Setting – There is little chance of human contact in the area except along trail corridors or at major access and destination points. Away from these areas, high opportunities for solitude and isolation exist with a very low likelihood of interactions between users. In general, party sizes are small. Visitors have a very high opportunity for experiencing independence and self-reliance associated with wilderness recreation skills, and for experiencing challenge and risk.

Managerial Setting – Management activities in the area will minimize impacts on the wilderness recreation experience. There is a low likelihood of contact between the public and management personnel. However, spot checks will occur to ensure compliance with the area's management direction. Necessary rules, regulations and information on minimum impact practices will be communicated to visitors outside the area, such as at trailheads or other suitable locations. Signs are generally not allowed except where absolutely necessary to protect environmental conditions or for safety.

Category III RMZs: Major River Corridors

Kechika River Corridor, Muskwa River Corridor, Toad River Corridor, Turnagain/Dall River Corridor, and Liard River Corridor Provincial Park.

Desired Future Conditions

Resource Setting – Management activities are directed toward maintaining an essentially unmodified environment. (There are areas where prescribed fire has been used in the past and may be used in the future to enhance wildlife habitat and forage for recreational livestock. In the past, site modifications at some guide outfitter camps have been significant.) There are relatively few facilities and developed trails. When present, facilities are generally low-key and rustic. Motorized water transport plays a significant role in providing access within these corridors.

Social Setting – There is occasional human contact in the area, usually in the vicinity of navigable rivers, lakes, AMA routes and aircraft landing strips. Away from these areas, high opportunities for isolation and solitude exist with a likelihood of low interactions between users. Small to moderate party sizes are expected. Visitors have high opportunities for experiencing independence and self-reliance associated with wilderness recreation and for experiencing challenge and risk.

Managerial Setting – Management activities in the area will minimize impacts on the wilderness recreation experience. There is a low likelihood of contact between the public and management personnel. However, spot checks will occur to ensure compliance with the area's management direction. Necessary rules, regulations and information on minimum impact practices will be communicated to visitors outside the area, such as at trailheads or other suitable locations. Signs are generally not allowed except where necessary to protect environmental conditions or for safety.

Management Activity Guidelines

The following are general guidelines to be used to ensure that recreation activities are consistent with the above management direction for this category. Additional guidelines can be found in Table 4.

- ✧ There is, at present, significant motorized boat use in the river corridors in this category, particularly during hunting season. (Current levels of use may not allow expansion of CR opportunities utilizing motorized boats.)
- ✧ Recurring riverboat access and use should be sensitive to RMZ values and resource user activities.
- ✧ In the summer, no motorized vehicle access is allowed off rivers, except for designated park or AMA routes in the Liard River Corridor Provincial Park.

Category IV RMZs: Large Resource Management Zones

Muskwa West, Besa-Halfway-Chowade, Graham North, Redfern-Keily Provincial Park, and Northern Rocky Mountains Provincial Park.

(Note: The RMZs in this category, except for the provincial parks, have significant potential for industrial activities. The long-term objective is to return these areas to their natural state as these activities are completed. During the periods these development activities are taking place, there is a greater potential for recreationists to encounter other resource users. These activities may modify the desired recreational experience to some degree.)

Mackenzie Addition: *Finlay-Russell Protected Area and Provincial Park*

Desired Future Conditions

Resource Settings – Management activities are directed toward maintaining an environment that ranges from essentially unmodified areas to areas that are modified, including areas modified by prescribed fire. (In the past, site modifications at some guide outfitter camps have been significant.) Facilities are, for the most part, rare, isolated and are generally low-key and rustic. Developed trails are common along watercourses, waterbodies and mountain passes. Motorized water, air and vehicle transport plays a significant role in providing access into these areas. At some times of the year, motorized use levels may be high along rivers and AMA routes.

Social Setting – The chance of human contact ranges from rare to frequent on travel corridors, aircraft landing strips, along rivers or at major destination points like lakes. Away from these areas, high to moderate opportunities exist for experiencing solitude and isolation. Interaction between users ranges from very low to moderate away from those travel corridors and destination points mentioned above. Small to large party sizes may be encountered. Opportunities for experiencing independence and self-reliance associated with wilderness recreation skills and for experiencing challenge and risk range from very high to moderate.

Managerial Setting – Management activities in the areas will, for the most part seek to minimize the impacts on the wilderness recreation experience. Rules, regulations and minimum impact practices will usually be communicated outside the area. Signs are generally not allowed except where necessary to protect environmental conditions or for safety. Contacts between the public and management personnel will, for the most part, be infrequent. However, spot checks will occur to ensure compliance with the area's management direction.

Management Activity Guidelines

The following are general guidelines to be used to ensure that recreation activities are consistent with the above management direction for this category. Additional guidelines can be found in Table 4.

- ✧ Recurring aircraft access and use should be sensitive to RMZ values and resource user activities.
- ✧ There is, at present, significant motorized boat use in the river corridors in this category, particularly during hunting season. New CR opportunities should be evaluated in relationship to current levels of motorized boat use and the incremental impact that will take place with the proposal.

Category V RMZs: Alaska Highway Corridor

Alaska Highway Corridor

(Note: This category has significant potential for enhanced resource development. The management intent is to manage the highway corridor to enhance the recreation and tourism resources.)

Desired Future Conditions

Resource Settings – Management activities are directed toward maintaining an environment that ranges from unmodified areas to intensely modified areas, including areas modified by prescribed fire. Facilities and trails are common and oriented toward high tourism use. High levels of motorized transport can be expected, especially during peak tourism periods and along the Alaska Highway.

Social Settings – The chance of human interactions is highly likely, especially close to the highway. Opportunities for experiencing solitude and isolation increase with the distance from the highway.

Managerial Settings – Management activities in this area will, for the most part, promote recreation activities that enhance highway-based tourism with emphasis on destination activities. Signs are allowed, subject to approval of appropriate government agencies.

Management Activity Guidelines

The following general guidelines are to be used to ensure that commercial recreation activities are consistent with the above management direction for this category. Additional guidelines can be found in Table 4.

- ✧ While there will be areas of concentrated localized commercial development within the corridor, the remaining areas along the highway corridor will be managed to maintain ecological integrity, wildlife, habitat and wildlife corridors. There will be an increasingly unmodified environment away from the highway.
- ✧ All proposals for development on Crown land in this category must provide a detailed business plan that demonstrates:
 1. the feasibility, sustainability and compatibility of proposed recreation development with existing highway use and development;
 2. the distinct need for the proposed development; and
 3. the lack of development opportunity on private land.

Category VI RMZs: First Nations Community Core

This zone category is meant to reflect semi-remote areas within the Mackenzie Addition. This involves areas located near the communities of Ingenika and Kwadacha, where higher levels-of-use are recognized to occur, as well as established access routes. Within the area, two zones are included, namely: Yah-Hya "Johiah" [Obo River] and Nuhseha [Fox]. These two are designated as special management zones, however, do not have the additional 'wildland' designation that the other SMZs in the planning area contain.

Desired Future Conditions

Resource Setting – Management activities are directed toward maintaining a natural environment featuring a small number of facilities and developed trails which are to be generally low-key, rustic, widely dispersed and compatible with the resource setting.

Social Setting – There is little chance of human contact in the area except along trail corridors or at major access and destination points. Away from these areas, high opportunities for solitude and isolation exist with a very low likelihood of interactions between users. In general, party sizes are small. Visitors have a very high opportunity for experiencing independence and self-reliance associated with wilderness recreation skills, and for experiencing challenge and risk.

Managerial Setting – Management activities in the area will minimize impacts on the wilderness recreation experience. There is a low likelihood of contact between the public and management personnel. However, spot checks will occur to ensure compliance with the area's management direction. Necessary rules, regulations and information on minimum impact practices will be communicated to visitors outside the area, such as at trailheads or other suitable locations. Signs are generally not allowed except where absolutely necessary to protect environmental conditions or for safety.

Management Activity Guidelines

According to the LRMP, motorized recreational access is only allowed to occur on primary roads in the Fox SMZ.

Table 4. Activity Guidelines for Categories of RMZs

Activities	Category I RMZ ¹	Category II RMZ	Category III RMZ	Category IV RMZ	Category V RMZ	Category VI RMZ
Camping	A	A	A	A	A	A
Hiking	A	A	A	A	A	A
Hunting	A	A	A	A	A	A
Angling	A	A ⁵	A	A	A	A
Ice-Fishing	A	A	A	A	A	A
Photography	A	A	A	A	A	A
Wildlife Viewing	A	A	A	A	A	A
X-country Skiing	A	A	A	A	A	A
Rock climbing	A	A	A	A	A	A
Ice climbing	A	A	A	A	A	A
Spelunking	A	A	A	A	A	A
Trapline ⁷ observing	A	A	A	A	A	A
Trail Riding	A	A	A	A	A	A
Rafting	A	A	A	A	A	A
Canoeing	A	A	A	A	A	A
Kayaking	A	A	A	A	A	A
Cycling	A	A	A	A	A	A
Non-Motorized Boats	A	A	A	A	A	A
Motorized Boating	A	A ⁴	A	A ⁴	A	A
Recreational flying	A	A	A	A	A	A
Snowmobile	NA	A	A	A	A	A
ATVs	NA	A ²	A ²	A ²	A ²	A ²
Vehicles	NA	A ²	A ²	A ²	A ²	A ²
Heli-Hiking	NA	A ³	A ³	A ³	A ³	A ³
Heli-Skiing	NA	A ³	A ³	A ³	A ³	A ³
Competitive sporting events	NA	A ⁵	A ⁵	A ⁵	A ⁵	A ⁵

A=Acceptable, subject to restrictions to protect fish and wildlife, other resource users and the natural environment in general. NA=Not Acceptable. Commercial recreation activities are subject to tenure or permitting conditions

- 1 No consumptive/motorized/or development-related recreation activities are deemed appropriate to occur within Ecological Reserves.
- 2 Only on designated AMA routes or designated park routes and subject to weight restrictions.
- 3 Heli-hiking and heli-skiing activities have the potential to cause adverse environmental effects, consequently, commercial activities must avoid significant impacts to wildlife, wildlife habitat, wilderness characteristics and the recreation experience of users. Commercial heli-skiing & -hiking activities restricted in the Forsberg Range (Dune Za Keyih) due to high value goat habitat.
- 4 No motorized boats above Tuchodi Lakes; within Kwadacha Wilderness Provincial Park; up-river of Logjam Rapids on the Gataga River.
- 5 Subject to approvals from appropriate government agencies and government corporations.
- 6 High levels of sensitivity to fishing pressures needs to be accounted for, particularly regarding high elevation lakes. Heli-fishing on Ram Lakes (Dune Za Keyih) restricted; special regulations for Fern Lake
- 7 Trapping is considered to be a traditional land use activity rather than a recreational activity. However, escorting visitors to observe trapping activities for a fee is considered a commercial recreation activity.

PRINCIPLES TO GUIDE THE REVIEW OF COMMERCIAL RECREATION APPLICATIONS

The legislation, policies and guidelines of Land and Water BC and the Ministry of Water, Land and Air Protection, Environmental Stewardship Division and BC Parks presently guide the review of commercial recreation applications. These policies and guidelines include principles in respect of: protecting environmental integrity and maintaining biological diversity; maintaining public access; providing a balanced mix of recreational experiences; ensuring compatibility of overlapping tenures; fair and open consultation taking into account locally established priorities and public interests; meaningful consultation with First Nations; providing economic opportunities for First Nations; and considering the implications of present and future treaty provisions.

Commercial recreation activities within provincial parks take direction from the *Park Act*, generally not resulting in any alienation of parkland or exclusive rights associated with the activity. In addition, the intent of permitting commercial recreation is to enhance the experience of park users consistent with the values of a particular park, not solely to provide economic development opportunities.

The following sections contain further discussion of some of these principles and others, as they relate more specifically to the M-KMA. Generally speaking, they are discussed in order of importance as factors to consider when evaluating commercial recreation applications, particularly those that may be competing or have overlapping interests.

1. Maintain and Protect Ecological and Environmental Integrity of the M-KMA

Recreation development and use is allowed in the M-KMA. However, it is clear from the *Muskwa-Kechika Management Area Act* and the Muskwa-Kechika Management Plan that such development will be limited by the primary objective of maintaining and protecting the globally significant wildlife populations and the wilderness environment. It is critical that this be recognized and considered in the review of commercial recreation applications.

It is the responsibility of applicants for commercial recreation businesses or tenures to clearly demonstrate that their proposed venture will not cause significant negative impacts on the environment, including wildlife, wildlife habitat, and wilderness values. BC Parks' policy requires new commercial recreation applications to be assessed through an impact assessment process. An assessment of cumulative impacts must be included in CR evaluations.

2. Consider Rights and Interests of First Nations

The whole of the M-KMA is subject to either the provisions of Treaty #8 or the aboriginal rights and interests of the Kaska Dena and Tsay Keh Dene. These interests must be carefully considered when evaluating applications for commercial recreation activities and tenures.

Applicants for commercial recreation businesses or tenures must demonstrate that their proposal has considered First Nations' rights and interests. Present Provincial Government policy requires that First Nations be consulted about commercial recreation proposals. The responsibility for meaningful and fair consultation lies with the Provincial Government. First Nations consultation for Commercial Recreation tenure will be guided by the policies of Land and Water BC, acting as the agent for the Crown. However, it would be prudent for applicants for new commercial recreation businesses to communicate with affected First Nations during the development of their proposal.

3. Maintaining Public Access and Use

Maintaining public access to enter and traverse the M-KMA is a primary consideration in reviewing and evaluating proposals for CR activities. Public access, as defined here, means the privilege enjoyed by the general public to use an area maintained in the same way and to the same degree as was available prior to tenuring a CR activity. Maintaining historical and future public use is a priority.

The review and evaluation of CR applications must consider the effects the proposed activities may have on existing and future public access and use levels. Priority will be given to those applications that:

1) identify potential conflicts with public use; and 2) most clearly demonstrate measures the applicant will use to minimize/mitigate impacts on public recreation use in the M-KMA. BC Parks generally issues non-exclusive permits to ensure public access is maintained. CR evaluations will also consider the extent to which the applicant has consulted with the public recreation sector.

4. Be Cautious in Allocating New Commercial Recreation Interests

The information is not available at present that would allow the Working Group to set precise capacity thresholds for various types of recreational activities in the M-KMA. As a result, proposals for commercial recreation activities must be evaluated using available information and best professional judgement without always fully understanding the capacity of the environment to absorb those activities without causing significant degradation of the values that the M-KMA was created to protect. Time is required to assess the full impacts of existing and newly allocated commercial recreation activities, tenures and permits, and to determine appropriate thresholds. Therefore, it is incumbent on managers to take a conservative, cautious approach to issuing approvals for commercial recreational activities and tenures while these thresholds are being determined. Prior to the approval of new CR tenures or permits, managers must identify those areas in the vicinity that will be held for the maintenance of ecological integrity and for the needs of First Nations and the public.

5. Leave Room for Future Allocations

Even if capacity thresholds could be fully defined at this point, the capacity of an area for recreation activities must not be fully allocated to allow for the consideration of future CR activities. This is a particularly critical issue for First Nations. Economic opportunities should be made available to First Nations (whose traditional territories encompassed the M-KMA) from development, including recreation development, in the M-KMA.

6. Give Preference to Applicants with Good Track Records

Applicants with a good track record of operating within the guidelines, policies, and regulations in respect of commercial recreation and related matters, should have preference over those who have a poor track record. This should not however, limit the fair consideration of proposals from new applicants who have no track record of operating CR businesses.

7. Involve Local Residents in Commercial Recreation Activities

The level of unemployment is very high in some parts of the northern half of British Columbia. It is fundamentally important that residents of the area benefit from economic development initiatives, including commercial recreation ventures. Operators of commercial recreation businesses in the Muskwa-Kechika should be encouraged to hire local residents, and should demonstrate in their applications for commercial recreation tenures and permits how their proposed business will benefit the local economy.

MONITORING PLAN

Introduction

Monitoring is the regular assessment of a situation or management program that provides information on the success of management decisions. Monitoring is essential to understanding: (1) the current magnitude of impacts; (2) changes in these impacts over time; (3) the relationship between current conditions and management objectives; and (4) the strengths and weaknesses of the management system. Monitoring can also facilitate adaptive management. For example, monitoring information on commercial operators' performance can be considered when renewing or amending tenure documents. In short, monitoring provides the basis for determining whether the desired future conditions for the M-KMA are being achieved.

Monitoring methods should be objective and simple, designed to detect changes in conditions and repeated frequently enough to detect trends. Methods should yield consistent results when different people collect data. This is important because management personnel frequently change positions.

Monitoring Factors, Indicators & Procedures

Table 5 lists a number of factors that will be monitored to ensure desired future conditions are being achieved for the different RMZ category settings in the M-KMA. For each factor, measurable indicators are described that together will reflect the condition of the factor. There is a shared responsibility for monitoring. MSRM in conjunction with the Muskwa-Kechika Advisory Board, Land and Water BC Inc. (LWBC) and WLAP will develop a monitoring plan utilizing the indicators and procedures outlined in Table 5. Indicators and monitoring procedures will evolve over time and will continue to evolve as new information becomes available. Periodic reviews may lead to plan amendments, such as revised indicators.

Monitoring Scale

Normally, monitoring will be conducted at the RMZ level. However, information will be aggregated for categories of RMZs to more clearly measure meeting the desired future conditions for that type of category.

Acceptability of Conditions Monitored

To provide a base against which a particular desired future condition can be judged as acceptable or not, standards need to be specified for each indicator. For example, if the written description for a RMZ category's social setting specifies a "likelihood of low interactions between users," managers can use the monitoring data to help specify how "low interactions" might be quantitatively defined. The monitoring data might show that encounters levels average 2-3 other parties per day. These data could be used to help set the standard for the "encounters with other parties per day" indicator to define the maximum acceptable level for that condition in that RMZ category.

At this time standards for the indicators in Table 5 have not been established due to the lack of data on existing conditions in the M-KMA. As resources and funding permit, MSRM in consultation with First Nations and stakeholders, will co-operatively begin the process to establish these standards to help ensure desired future conditions are being achieved.

Recreation Management Plan for the M-KMA

Table 5. Monitoring Factors, Indicators and Procedures

Zone Setting	Factor	Indicator	Monitoring Procedure		
			Inventory Method	Sampling Procedure	Frequency
Resource Setting:	Facility levels/types ¹	Number/type of new facilities per year	Audit LWBC/MOF/WLAP permits/records	Census of all facility developments at end of fiscal year	Annually
	Trail development	Number/km of authorized trails per year	Audit LWBC/WLAP/MOF permits/records	Census of all authorized trails at end of fiscal year	Annually
	Prescribed burns	Type (i.e., new maintenance)/number/size (ha) per year	Audit of MOF/WLAP records	Census of all burns at end of fiscal year	Annually
	Campsite development: 1) public use sites 2) commercial sites (exclusive use only)	Number/condition of campsites	Campsite impact evaluation using campsite impact rating form	Rate each campsite before hunting season	Rate each campsite every 5 years
	Range tenures	Number/AUMs of range tenures	Audit MOF/WLAP records	Census of all range tenures	Annually
	Range condition	Overall condition	Evaluation of range sites using ocular estimates/exclosures	To be determined	As needed
	Motorized routes	Number/km of AMA routes and designated park routes	Audit of WLAP AMA routes and records	Census of all AMA and BC Park designated routes	Annually
	Motorized use: Boat Snowmobile Aircraft Helicopter ATV	Number (median, range) of sightings per month during use season	Survey of use patterns using visual counts	Administrative survey at appropriate locations on randomly selected days during use season	To be determined

¹ Facilities denotes permanent structures e.g., cabins, docks, corrals, bridges, parking lots, etc.

Recreation Management Plan for the M-KMA

Zone Setting	Factor	Indicator	Monitoring Procedure		
			Inventory Method	Sampling Procedure	Frequency
Social Setting:	Recreation use: 1) Commercial 2) Public	Recreation activity type/ Recreation user days per year	Audit BCALC/BC Parks records and survey of public activity/ use levels using appropriate sampling procedures	To be determined	Every 5 years
	Party size	Size (median, range) of parties	Survey of party size using appropriate sampling procedures	To be determined	Every 5 years
	Encounter levels	Number (median, range) of other parties encountered per day	Survey of encounter levels using appropriate sampling procedures	To be determined	Every 5 years
	Motorized use: Boat Snowmobile Aircraft Helicopter ATV	Number (median, range) of sightings per day	Survey of encounter levels using appropriate sampling procedures	To be determined	Every 5 years

Recreation Management Plan for the M-KMA

Zone Setting	Factor	Indicator	Monitoring Procedure		
			Inventory Method	Sampling Procedure	Frequency
Managerial Setting:	Human/bear safety-related interactions	Number/type of interactions per year	Audit of agency records	Census of all incidents at end of fiscal year	Annually
	User/Environmental degradation incidents	Number/type of incidents per year	Audit of agency records	Census of all incidents at end of fiscal year	Annually
	User/wildlife incidents	Number/type of incidents per year	Audit of agency records	Census of all incidents at end of fiscal year	Annually
	User conflict incidents	Number/type of incidents per year	Audit of agency records	Census of all incidents at end of fiscal year	Annually
	Search/rescue incidents	Number/location of incidents	Audit of agency records	Census of all incidents at end of fiscal year	Annually

RECOMMENDATIONS

A previous section of this plan described a number of issues and concerns identified by individuals and groups who participated in the information gathering activities of the Working Group and workshops. Additional management and implementation issues and the need for more detailed recreation planning were also identified as the recreation management directions were developed. The purpose of this section is to advance specific recommendations for resolving many of the identified issues and needs. Not all of the identified issues and concerns are addressed here. However, they all have been forwarded to the appropriate provincial government agencies for consideration. **The following recommendations are not listed in order of priority.**

Collection of Information and Research:

RECOMMENDATION #1 – Recreation Inventory

Effective planning and management of recreation resources require reliable and up-to-date recreation supply information. In particular, recreation inventory information on biophysical features, recreation activities and the Recreation Opportunity Spectrum is critical.

To fill recreation inventory gaps and thereby facilitate more detailed recreation planning needed in the M-KMA, it is recommended that the appropriate Provincial Government agencies update the recreation inventory information.

RECOMMENDATION #2 – Baseline Information on Recreation Use

Understanding wilderness recreation use is an essential foundation for effective recreation management in the M-KMA. These planning processes have identified the lack of detailed knowledge of the amount of use, user characteristics, economic value and attitudes toward wilderness in the area. Therefore, to successfully manage and monitor changes in recreation use over time, the collection and analysis of baseline information is critical.

It is recommended that the M-K Advisory Board fund comprehensive studies to collect the above information using appropriate scientific wilderness recreation use data collection and analysis methodologies.

RECOMMENDATION #3 – Research on the Effects of Recreation

The need to enhance the scientific knowledge base regarding the effects of recreation activities on ecological components was identified in the M-KRMP planning process. In particular, the effect of motorized boat use on fish/wildlife, the effect of fishing in high elevation lakes, and the effect of using prescribed fire to enhance forage for wildlife and recreational livestock on soil and vegetation were identified as important information deficiencies.

It is recommended that the M-K Advisory Board, its research partner UNBC, and resource management agencies give a high priority to conducting research to enhance the scientific knowledge base in respect of the impacts of recreation activities on the natural environment.

RECOMMENDATION #4 – Levels of Riverboat Use

Public consultation has identified high levels of riverboat use on some river systems as a concern. Population increases and technological improvements to Jet Boats have increased jet boat traffic on river systems that previously had little use. However, reliable statistics on riverboat use, especially on specific rivers, is not available.

To effectively plan for and manage this highly valued recreation opportunity, it is recommended that the M-K Advisory Board and government agencies develop methods to gather riverboat use information, using appropriate scientific methods. In addition, appropriate management strategies should be developed, consistent with the management direction, to address identified riverboat use levels.

RECOMMENDATION #5 – Use of Exotics

The Fort Nelson LRMP highlighted a concern regarding the use of exotics (llamas and ostriches) as pack animals in provincial parks and the potential of spreading disease, particularly among native Stone's sheep populations. This potential also exists in other areas of the M-KMA with Stone's sheep populations.

To address this concern, it is recommended that the M-K Advisory Board in co-operation with its research partner UNBC, WLAP and MOF facilitate research on this topic and that WLAP provide policy direction on the issue (e.g., in the Wildlife Management Plan for the M-KMA).

RECOMMENDATION #6 – Fisheries Inventory and Management

Fisheries biologists with WLAP have indicated that insufficient information exists to establish priorities for fisheries management and protection of fish and fish habitat in most of the M-KMA.

It is recommended that WLAP prioritize and fill fish and fish habitat inventory information gaps, including harvest levels/use/distribution and knowledge about species rarity in the M-KMA and use this inventory information in developing a fisheries management plan.

RECOMMENDATION #7 – First Nations' Traditional Use and Occupancy Information

The M-KMA RMP planning process has identified that there are information gaps concerning First Nations' traditional use and occupancy information. Filling these gaps is essential for effective recreation planning and management in the M-KMA.

It is recommended that the M-K Advisory Board fund First Nation's traditional use and occupancy studies to fill critical information gaps that presently limit the efficacy of recreation planning and management. Any funding should be contingent on the development of an information sharing agreement concerning the use and distribution of First Nations' traditional use and occupancy information.

RECOMMENDATION #8 – Indicator Standards/Thresholds

Closely associated with Recommendation #9 is the need to develop monitoring indicator standards (maximum acceptable levels or thresholds) for various factors described in the M-KMA RMP Monitoring Plan. For the Mackenzie Addition, an emphasis on establishing standards and indicators for motorized boat use and float plane activity and associated hunting/fishing activities is desired.

It is recommended that MSRM, MOF, WLAP and LWBC work co-operatively with First Nations, local governments and users to develop indicator standards (maximum acceptable levels or thresholds) consistent with management directions.

RECOMMENDATION #9 – Monitoring

This plan contains a specific monitoring plan to achieve the desired future conditions for recreation. Responsibility for the on-going monitoring of conditions lies with the provincial government and its agencies/corporations.

It is recommended that all of the appropriate government ministries, agencies and corporations agree to implement the M-KMA RMP Monitoring Plan and report the results of their monitoring activities to the M-K Advisory Board on an annual basis.

RECOMMENDATION #10 – Information Management

Due to the vastness and the variety of land-uses in the M-KMA, the amount of information needed to manage the area's resources, track operational activities and achieve the intent of the *M-KMA Act* is enormous. The M-K Advisory Board and government has begun to develop an information management system to effectively carry out these activities.

It is recommended that the board and government agencies continue to develop the system to store and analyze needed information, including existing and updated recreation inventory information along with the results of on-going monitoring data.

Policy Issues:

RECOMMENDATION #11 – Resolution of "Packer Issue"

One of the most widely communicated recreation-related issues in the M-KMA was the need for resolution of the so called "packer issue."

It is recommended that BC Environment continue to work with the BC Wildlife Federation, the Guide Outfitter Association of BC and the Packers Association to reach a solution to this issue by 2004.

RECOMMENDATION #12 – Introduction of Non-Native Fish Species

The pros and cons of introducing non-native fish species in the M-KMA were identified during the consultation process.

It is recommended that WLAP and BC Parks continue their policy of not stocking non-native fish in the M-KMA.

Enforcement Issues:

RECOMMENDATION #13 – Enforcement Issues

Another issue/concern raised by users, First Nations and government agencies was that of enforcement. Associated with this concern was the need for a greater "management presence."

To address these various issues, it is recommended that resource management agencies, in co-operation with the M-K Advisory Board, First Nations and user organizations, enhance their enforcement efforts and management presence in a manner consistent with the management direction for each category of RMZs.

RECOMMENDATION #14 – Motor Vehicle Access

The Fort St. John and Fort Nelson LRMPs endorsed the use of the *Wildlife Act* to limit motorized vehicle access in the M-KMA to designated routes to limit environmental impacts from vehicle access. Currently there are roads designated for access in the Mackenzie addition.

It is recommended that WLAP continue to use and monitor compliance with the regulation. In addition, it is recommended that WLAP continue to use a public, First Nations and inter-agency consultation process for periodic review and revision of the regulation. Agencies should also consider the use of other legislative, regulatory and policy mechanisms to better manage motorized access.

RECOMMENDATION #15 – Public Reporting

The M-KRMP planning process identified the importance of facilitating the collection of information on various enforcement (e.g., AMA violations, wildlife violations, etc.) and safety (e.g., bear/human incidents) issues.

It is recommended that the M-K Program Management office and co-ordinator, through their offices and communication strategies, encourage the continued use of the provincial 1-800 number for reporting enforcement and safety issues within the M-KMA. The information collected must be communicated to appropriate government agencies and other organizations.

Education Issues:

RECOMMENDATION #16 – Education

The need for increased education regarding appropriate backcountry user ethics, safe bear/human encounter behavior and “best commercial operator practices” behavior was voiced during the consultation process.

It is recommended that the M-K Advisory Board and resource management agencies, in co-operation with First Nations, user organizations, regional tourism organizations and other government agencies, continue to develop and implement education strategies to address these needs.

CR Application Process:

RECOMMENDATION #17 – Review of CR Applications

[BCALC] is the Government Corporation responsible for approving and granting tenure to commercial recreation activities on Crown Land outside of Provincial Parks. BC Parks approves permits for these operations in the parks, consistent with the *Park Act*. Both of these organizations have policies and procedures governing the approval process.

It is recommended that LWBC and BC Parks (WLAP) use their own policies, guidelines and legislation plus the principles detailed in the section of this report titled “Principles to Guide the Review of CR Applications” in assessing applications for commercial recreation activities, tenures and permits in the M-KMA.

RECOMMENDATION #18 – First Nations and CR Application Processes

First Nations’ people, with traditional and treaty territories encompassed by the M-KMA, should benefit from economic development, including recreation development, in the M-KMA. Currently First Nations have not participated significantly in applying or acquiring commercial recreation tenures and permits. This may be due to a lack of familiarity with the policies and application procedures in respect of commercial recreation.

It is recommended that LWBC and BC Parks (WLAP) develop communications strategies to better inform First Nation’s communities on commercial recreation policies and application processes. These strategies should also assist First Nations to access E-government tools and initiatives or to find alternative methods when these are not available.

RECOMMENDATION #19 – Consultation with First Nations on CR Applications

The responsibility for meaningful and fair consultation with First Nations on commercial recreation proposals lies with the government. In order to ensure that consultation is appropriate for and effective in the M-KMA, clarification on specific consultation mechanisms is needed.

Taking into consideration their existing policies regarding consultation with First Nations, BC Parks (WLAP) and LWBC should work with affected First Nations in the M-KMA to work out effective consultation mechanisms in respect of CR proposals.

Plan Implementation and Future Planning:

RECOMMENDATION #20 – More Detailed Planning

Because of the site-specific nature of many of the management issues identified in the M-K RMP planning process, the WG recognized the need for more detailed planning processes to adequately address the issues and develop effective management directions and activity guidelines.

It is recommended that Government Agencies develop and implement planning strategies to address those issues. Examples of potential planning processes include: BC Forest Service district recreation planning; park management planning; wildlife management planning; and the Commercial Recreation Technical Review Committee process. Recommended priorities for implementing planning processes are listed in the Implementation Schedule.

RECOMMENDATION #21 – Wildlife Management Planning

Presently, hunting is one of the most significant recreation activities in the M-KMA. Because of the close inter-relationship between recreation management and hunting in the M-KMA, wildlife management planning is critical for effective management of recreation resources.

It is recommended that the M-K Advisory Board and WLAP continue to give high priority to developing and implementing a Wildlife Management Plan, including provisions for the collection of reliable wildlife population and harvest data.

RECOMMENDATION #22 – Plan Review and Revision

Successful implementation of specific recreation management directions and adapting management strategies to respond to changing conditions in the M-KMA over time requires periodic review and possibly revisions to the M-KMA RMP.

It is recommended that government agencies in consultation with the M-K Advisory Board, First Nations and users periodically review all elements of the M-KMA RMP (in accordance with the Implementation Schedule) and make any needed revisions to achieve the intent of the M-KMA Act. In this process, emphasis should be given to evaluating the effectiveness of indicators, standards (maximum acceptable levels or threshold), and monitoring procedures.

RECOMMENDATION #23 – Implementation

Implementation of this M-KMA Recreation Management Plan must be carried out in a coordinated fashion and in a cooperative and collaborative manner.

It is recommended that the IAMC ensure that the Implementation Schedule is followed and all reporting requirements are met.

RECOMMENDATION #24 – Range Management Plan

A better understanding about range use, the associated user groups (private recreationists, commercial recreationists, First Nations, researchers, park management), and potential environmental impacts is required within the M-KMA. Range and camp site assessments are being completed in cooperation between the M-K Advisory Board and the Fort Nelson MOF.

It is recommended that a Range Management Plan be conducted similar to the plan conducted in the Fort Nelson Forest District for the eastern M-KMA.

PLAN IMPLEMENTATION AND REVIEW

This recreation management plan for the M-KMA identifies recreation management directions, management activity guidelines, and recreation activity guidelines for the RMZs developed in the Mackenzie, Fort Nelson and Fort St. John LRMPs. In addition, a number of recommendations were made to ensure the plan is effectively achieved.

The Ministry of Sustainable Resource Management is responsible for implementation of the LRMPs. Implementation of "local strategic plans" such as the Recreation Management Plan are the responsibility of various provincial government agencies. Planning and management principles described in a previous section, advise that truly effective implementation must involve all stakeholders, First Nations, users and industry operating both in and adjacent to the area.

The working group for the original M-KRMP recommended a number of monitoring and implementation strategies. MSRM in co-ordination with the M-K Advisory Board will provide opportunity for review and monitoring of the Recreation Management Plan. Through the annual LRMP monitoring and implementation meetings, agencies can report out on the recreation activities in the MK. The public and stakeholders will have an opportunity to review this information, evaluate the extent to which recommendations have been implemented and provide advice for continued implementation and adaptive management of the plan.

APPENDIX 1: INDIVIDUALS INVOLVED IN THE MACKENZIE ADDITION PLANNING PROCESS

The following groups and individuals contributed their time and support towards this planning project :

- ✧ Howard Madill, contract coordinator and Provincial coordinator of the Muskwa Kechika Management Area;
- ✧ Ron Rutledge, coordinator of the original M-KMA Recreation Management Plan;
- ✧ Bill Lux, Vice Chair, M-KMA Advisory Committee, Vice Chair of Lands and Research for the Kaska Dena Council;
- ✧ Ross Peck, Director of the M-KMA Advisory Committee, Owner/Operator of Ross Peck Guide Outfitting;
- ✧ Malcolm Foy, John R. McCook, Craig McCook, Kaska Dena Council representatives;
- ✧ Muskwa-Kechika Management Area Advisory Board and support staff;
- ✧ A number of guide-outfitters operating within the M-KMA including: Ross Peck, Bryan Martin, Mike & Dixie Hammett, Darwin Cary, Calvin Kostynuk, Darwin & Angie Watson;
- ✧ Vi Lambie, Mackenzie Fish & Game Association and Mackenzie Nature Observatory; Tom Michael, Councilor, Mackenzie Town Council; Tom Briggs, Mayor, Town of Mackenzie;
- ✧ Herb Stumpf, Director, BC Wildlife Federation; and
- ✧ Johnny Mikes, Canadian River Expeditions.

Provincial Government Staff:

- ✧ BC Parks – Mike Neto, Scott Fraser, Marilyn Hagdehorn, Ray Wiggins;
- ✧ Land and Water – Jason Lawson, Elvin Gowman, Vicki Dodd;
- ✧ Ministry of Forests – Zoran Boskovic, Steve Dodds; and
- ✧ Ministry of Sustainable Resource Management – Anne Anderson.

APPENDIX 2: ADMINISTRATIVE FRAMEWORK FOR RECREATION MANAGEMENT IN THE M-KMA

ADMINISTRATIVE FRAMEWORK FOR RECREATION MANAGEMENT IN THE M-KMA

The statutory authority to manage the recreation resources within the M-KMA lies with a number of provincial government line agencies, offices and committees. In addition, the *Muskwa-Kechika Management Area Act* provides the Muskwa-Kechika Advisory Board with roles and responsibilities related to the planning and management of the areas' recreation resources. The following is a summary of the administrative framework surrounding recreation management in the M-KMA.

Muskwa-Kechika Advisory Board

The Advisory Board is appointed by the Premier to advise government on natural resource management in the area and ensure that activities within the area are consistent with the objectives of the Muskwa-Kechika Management Plan. In addition, the Board will:

- publicly report at least annually on its reviews of operational activities in the area;
- provide advice on corporate priorities for and coordination of local strategic planning in the area;
- review proposals and funding requests and make recommendations for expenditures from the Muskwa-Kechika Trust Fund;
- ensure adequate public consultation in the preparation and approval of local strategic plans, amendments to the Muskwa-Kechika Management Plan, or any other significant policy issues for the area; and
- provide recommendations to the Environment and Land Use Committee on any proposed amendments to the Management Plan.

Ministry of Sustainable Resource Management

The primary role of MSRM in management of the MKMA is to:

- provide support and advice to the Inter-Agency Management Committee;
- assist in dispute resolution and clarification of significant policy issues for the area; and
- assist in acquiring financial support for management and planning activities in the area.

Omineca-Peace Inter-Agency Management Committee (IAMC)

The IAMC is made up of the Regional Managers of Provincial government ministries. The responsibilities of the IAMC with respect to the M-KMA include the following:

- to implement the Memorandum of Understanding Respecting Recreation Planning in the M-KMA;
- to assist in resolving conflicts between agencies and resource users;
- to maintain a registry of plan documents, amendments, and local strategic plans, available to the public;
- to review and provide recommendations to the Environment and Land Use Committee on any proposed amendments;
- in consultation with the Advisory Board, prepare an annual inter-agency work plan to facilitate the implementation of the Muskwa-Kechika Management Plan; and
- in partnership with the Advisory Board: provide for and coordinate public review and consultation as necessary; and prepare an annual monitoring report on plan implementation, amendments and expenditures.

Recreation Management Plan for the M-KMA

Muskwa-Kechika Management Committee

The Muskwa-Kechika Management Committee (MKMC) gets direction from the IAMC and is made up of the following line agency representatives and government corporations: Ministry of Forests District Managers, Fort Nelson and Fort St. John Forest Districts; BC Environment and Lands, Regional Manager; Ministry of Energy and Mines, Manager of Field Operations; BC Parks, Peace-Liard District Manager; and the senior land agent from the BC Assets and Land Corporation. Responsibilities of the M-KMC include the following:

- coordinate the approval of all recreation-related approvals, issuances, permits or authorizations of plans, allocations, tenures, dispositions and licenses (including Commercial Recreation applications) until such time as a local strategic recreation management plan has been approved for the area;
- identify areas requiring local strategic plans and prioritize the timing of those plans;
- designate a working group for local strategic planning processes;
- coordinate the development of procedures for local strategic planning;
- manage local strategic plans;
- establish technical teams as required, including terms of reference, policy direction, scope and resources necessary for the teams to function;
- ensure involvement and meaningful consultation with First Nations consistent with government responsibilities;
- arrange for the involvement of local governments, tenure holders, stakeholders, and the public in local strategic planning and management initiatives;
- ensure that information is provided to facilitate meaningful involvement;
- oversee the adequacy of inter-agency referral processes; and
- Implement and manage the dispute resolution process as necessary.

Line Agencies

The following provincial line agencies have recreation-related legislated mandates and are responsible for and/or participate in local strategic recreation planning in the M-KMA.

BC Parks (Ministry of Water Land and Air Protection)

BC Parks is the provincial government agency responsible for the planning and management of the Protected Areas System (PAS) component within the MKMA. In co-operation with the public, First Nations and other government agencies, BC Parks manages Provincial Parks, Protected Areas, Ecological Reserves and Recreation Areas. The two primary goals of the PAS are: (1) to protect viable, representative examples of the natural diversity of the province, representative of major terrestrial, marine and freshwater ecosystems, the characteristic habitat, hydrology and landforms, and the characteristic backcountry recreational and cultural heritage values of each ecosection; and (2) to protect the special natural, cultural heritage and recreational features of the province.

More specific recreation goals of BC Parks include: (1) to provide park attractions and services which enhance the province's major tourism travel routes; (2) to provide park attractions that serve as or enhance outdoor recreation holiday destinations in key areas across the province; (3) to provide outstanding backcountry adventure recreation experiences across the province; and (4) to ensure access to local outdoor recreation opportunities for all residents of the province.

BC Parks' management planning program, in concert with guiding legislation and policy, ensures that all protected areas have plans that ensure the continuity of the values for which they have been designated. Management planning is one form of decision-making BC Parks uses to manage areas under its jurisdiction. Management planning is complemented by other decision-making processes such as systems planning, operational planning, business planning and impact assessment processes.

A Protected Area Management Plan guides the management, conservation and use of a protected area. It describes management objectives that relate to the protection and management of lands and waters, to associated natural, recreational and cultural heritage values, and the avoidance of Treaty and aboriginal rights infringement. A

management plan responds to strategic issues by defining a set of management strategies, and the range of uses and activities that can occur within a protected area.

BC Parks is committed to involving the public, First Nations, other government agencies and licensed users, in developing management plans for protected areas. Three general approaches to involvement may be used: informative, consultative, or shared planning. The approach used for a particular protected area will vary with the complexity of management issues and with the expectations and interests expressed by members of the public, First Nations and government agencies.

Ministry of Forests

The Ministry of Forests is responsible for the management, protection and conservation of the forest and range resources, particularly timber, forage and recreation (including landscape and wilderness) within the Muskwa-Kechika Management Area, outside Protected Areas. (The ministry does have agreements with the Ministry of Environment, Lands and Parks for conducting range and fire management activities within Protected Areas.) The ministry is also charged with planning for these resources and other natural resource values in consultation and co-operation with other ministries, agencies of the crown, First Nations and the public.

The recreation program of the Ministry of Forests has a two-fold mission: to provide the opportunity for recreation experiences and benefits by protecting the Provincial Forest recreation resource, and to manage the use of the Provincial Forest recreation resource. Five activities are administered by the ministry's recreation program: program management, resource management, use management, landscape management, and wilderness management. Recreation planning is a sub-activity of resource management and is guided by government policy.

Operational plans for recreation are required in order to: (1) achieve recreation objectives established in strategic land use plans; (2) guide recreation activities at the operational level; and (3) provide input into operational plans for other forest resources. Forest district recreation plans have four components. The first element is the recreation vision and goals assessment, which describes the "Desired Future State" for recreation for the long term (5 to 20 years or more horizons). The second element includes a description of the district's intent with respect to recreation and sets out recreation priorities and recommended actions. The third element of the plan is the business planning process. Here, funding requirements are prepared and set out in appropriate formats for review by ministry and non-ministry funding mechanisms. Lastly, monitoring standards and indicators are described which enable managers to evaluate if desired objectives are being achieved.

A number of public involvement methods are available for use in the ministry's recreation planning process. Consultation methods include position papers, written briefs, public meetings and workshops. More extended involvement methods include the establishment of task groups, public advisory committees, and joint planning teams. Selection of the appropriate involvement method is dependent on the scope and complexity of the issues, the interest/expectation levels of interested stakeholders, and the available resources (staff time/money).

Land and Water BC Inc. (LWBC)

Land and Water BC is responsible for the administration and allocation of Crown land (outside of Protected Areas) for commercial, industrial, agricultural, residential, recreational, institutional, utility, aquatic and conservation uses. The issuing of rights and management of Crown land for the purposes of commercial recreation (CR) within the M-KMA will be consistent with the Muskwa-Kechika Management Plan and the Protocol on Crown Land Administration and Forestry Activity between the BC Forest Service and LWBC.

The management and disposition of Crown land for CR activities are administered by LWBC through its Commercial Recreation On Crown Lands Policy. Government has recently revised the policy. In the M-KMA special provisions require the approval of a recreation plan prior to tenure issuance.

Under the new policy, a number of tenure options are available to CR tenure applicants. These options include: short term Investigative Use Permits; low impact Temporary Permits; long term licensees of Occupation; and long term Leases (site specific). Each form of tenure confers different rights, tenure terms, pricing, application requirement,

Recreation Management Plan for the M-KMA

referral and advertising requirements, tenure replacement procedures and sub-tenuring availability. CR management plans are required for Licensees of Occupation and Leases.

CR Management Plans contain: (1) mapped information, including locations of all proposed activities, site diagrams, access routes, cultural and heritage sites and other tenures within the CR area; and (2) narrative information, including a detailed description of the operation, restrictions, guidelines and conditions for use of the operating area.

All applications for CR leases and licenses are referred to provincial government agencies, First Nations, local governments and other interested parties in order to ensure that all resource values and environmental considerations, potential impacts and benefits, cultural and heritage values, existing and potential commitments are identified and addressed.

Environmental Stewardship Division, Water, Land and Air Protection

Although not directly responsible for recreation planning, Environmental Stewardship section of the Ministry of Water, Land and Air Protection has an interest in the planning and management of recreation resources in the M-KMA. Hunting and sport fishing are primary recreation activities in the area. Recreation objectives and strategies related to hunting and fishing activities, therefore, can affect the agency's ability to achieve its fish and wildlife program goals which include the following:

- to conserve the natural diversity of fish and fish habitat and to sustainably manage freshwater sportfishing;
- to maintain clean, healthy and safe land, water and air for all living things;
- to provide social, economic and outdoor recreational opportunities (e.g., through the licensing of guide/outfitters for hunting and angling activities) consistent with maintaining a natural diverse and healthy environment;
- to maintain the diversity and abundance of native wildlife species and their habitats;
- to provide a variety of opportunities for the use and enjoyment of wildlife; and
- to promote people and wildlife living in harmony.

Ministry of Small Business & Economic Development

Within its tourism mandate, the Ministry of Small Business & Economic Development (MSBED) provides decision makers with guidance and information on the tourism-related effects of resource decisions.

Land-based resources of importance to tourism can be broadly categorized under four themes:

- Tourism and recreational settings (i.e., roaded, non-roaded, etc.);
- Visual landscape measures;
- Tenures; and
- Infrastructure and access (i.e., trails, roads, campsites, etc.).

Authority for managing the above themes rests with other provincial agencies. MSBED works with these other agencies to ensure tourism-related interests are included in land-use decisions.

